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Total Number of Pages in This Submission

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Application Number

09/945,469

Filing Date

08/30/2001

First Named Inventor

LaSalle, Ryan M.

Art Unit

3639

Examiner Name

Borissov, Igor N.

Attorney Docket Number

005222.00130

**ENCLOSURES (check all that apply)**☒ Fee Transmittal Form☐ Fee Attached☐ Amendment / Reply☐ After Final☐ Affidavits/declaration(s)☐ Extension of Time Request☐ Express Abandonment Request☐ Information Disclosure Statement☐ Certified Copy of Priority Document(s)☐ Reply to Missing Parts/  
Incomplete Application☐ Reply to Missing Parts  
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Firm

Banner &amp; Witcoff, LTD.

Signature

Printed Name

Kenneth F. Smolik

Date

03/06/2006

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No.

44,344

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**CERTIFICATE OF EXPRESS MAILING**  
(Attorney Docket No: 005222.00130)

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Deposited March 6, 2006

I hereby certify that the attached correspondence, identified below, is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313.

By: 

Application of: LaSalle, et al.

Serial No.: 09/945,469

Filing Date: August 30, 2001

Title: **TRANSITIVE TRUST NETWORK**

Transmitted herewith are the following documents:

- ☒ Transmittal Form (1 page)
- ☒ Brief on Appeal (71 pages)
- ☒ Fee Transmittal Form (1 page)
- ☒ Return Receipt Postcard

Attorney Case No.: 005222.00130

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). <b>FREE TRANSMITTAL</b> <b>for FY 2005</b> MAR 06 2006 <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		<b>Complete If Known</b>	
TOTAL AMOUNT OF PAYMENT (\$)		Application Number	09/945,469
		Filing Date	08/30/2001
		First Named Inventor	LaSalle, Ryan M.
		Examiner Name	Borissov, Igor N.
		Art Unit	3639
		Attorney Docket No.	005222.00130

**METHOD OF PAYMENT** (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify) : \_\_\_\_\_  
☒ Deposit Account Deposit Account Number: 19-0733 Deposit Account Name: Banner & Witcoff, LTD.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☒ Charge any additional fee(s) or underpayments of fee(s) ☒ Credit any overpayments

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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

**2. EXCESS CLAIM FEES**

Fee Description				Fee (\$)	Fee (\$)
Each claim over 20 (including Reissues)				50	25
Each independent claim over 3 (including Reissues)				200	100
Multiple dependent claims				360	180
Total Claims	Extra Claims	Fee(\$)	Fee Paid (\$)	Multiple Dependent Claims	
_____ - 20 or HP= _____	x _____	= _____		Fee (\$)	Fee Paid (\$)
HP = highest number of total claims paid for, if greater than 20.					
Indep. Claims	Extra Claims	Fee(\$)	Fee Paid (\$)		
_____ - 3 or HP= _____	x _____	= _____			
HP = highest number of independent claims paid for, if greater than 3.					

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____	/ 50 = _____	(round up to a whole number) x		= _____

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge) : <u>Brief on Appeal</u>	<u>500.00</u>

**SUBMITTED BY**

Signature	<u>Kenneth F. Smolik</u>	Registration No. (Attorney/Agent)	44,344	Telephone	312-463-5000
Name (Print/Type)	Kenneth F. Smolik	Date	03/06/2006		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	)	
LaSalle, et al.	)	
	)	Group Art Unit: 3639
Serial No.: 09/945,469	)	
	)	Examiner: Borissov, Igor N.
Filed: August 30, 2001	)	
	)	Attorney Docket No: 005222.00130
For: Transitive Trust Network	)	
	)	
	)	

**BRIEF ON APPEAL**

Mail Stop: Appeal Brief-Patents  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 41.37, Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences in response to the Final Office Action mailed on October 7, 2005. A Notice of Appeal was timely filed on January 6, 2006.

Please charge any necessary fees in connection with this Appeal Brief to Deposit Account No. 19-0733.

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**I. Real Parties in Interest**

The real party in interest is ACCENTURE GLOBAL SERVICES GMBH.

## **II. Related Appeals and Interferences**

Appellants are unaware of any appeals or interferences related to the subject appeal.

**III. Status of the Claims**

Claims 1-44 are pending and are found in the Appendix. Claims 1-44 stand rejected. No claims have been allowed. Claims 1-44 are the subject of this appeal.

**IV. Status of Amendments**

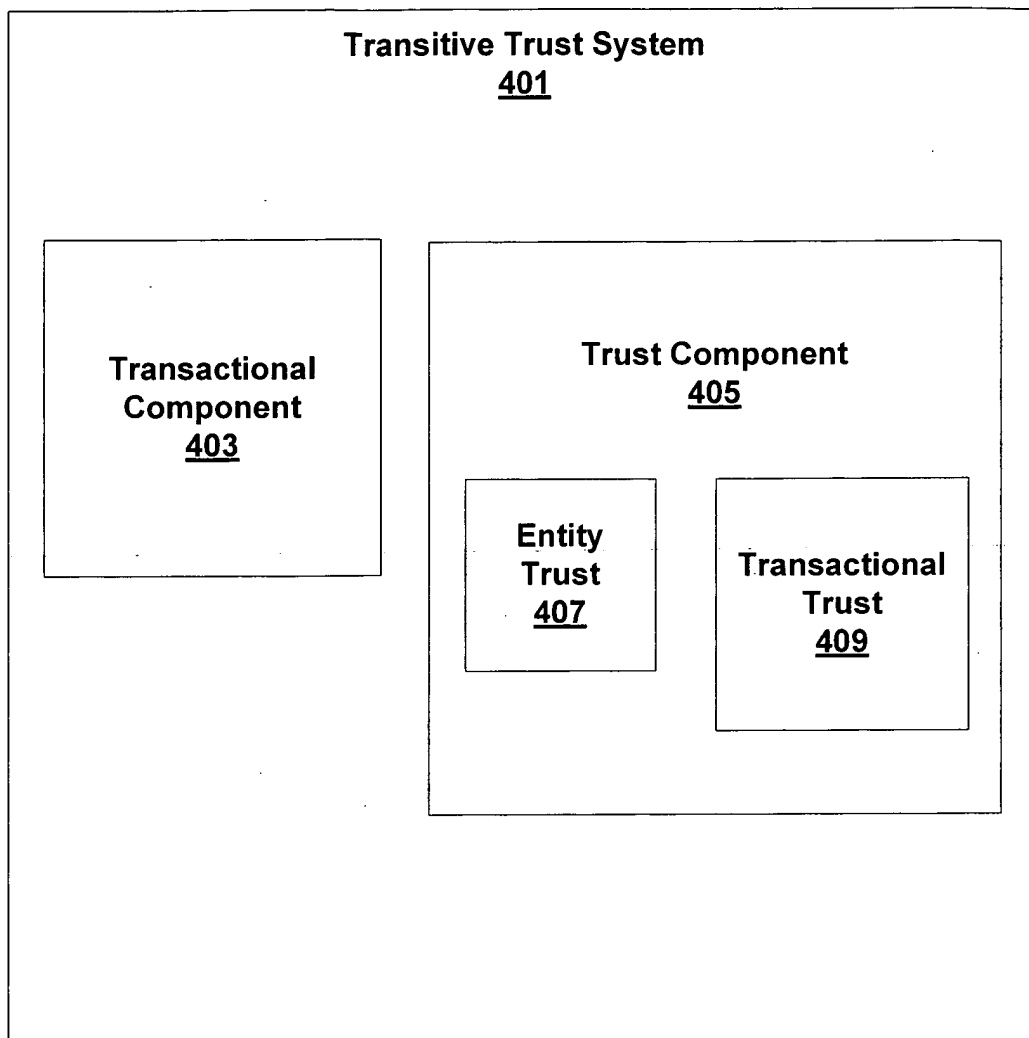
No amendment after final rejection has been filed.



## **V. Summary of Claimed Subject Matter**

The present invention is directed to methods and apparatuses for establishing a business relationship between organizations. The following description summarizes the invention and is subsequently followed by the specific descriptions of the independent claims 1, 2, 13, 17, 21, 23, 24, 30, 35, 36, 37, and 44 (labeled as “**Description of Independent Claims**”).

A transitive trust system 401, such as the one shown in FIG. 4a, includes two or more components, e.g., a transactional component 403 and a trust component 405. (Paragraph 39; Figure 4A.) Transactional component 403 provides a peer-to-peer type capability for sharing information regarding entities. Trust component 405 can store trust-related information such as: valuation criteria for judging relationships, trust levels between all entities that are involved in a particular project, proxy capabilities, and/or trust parameters that may exist between entities.

**FIG. 4a**

The valuation criteria of the trust-related information may be defined by the entities and may include factors such as performance or activity of an entity in the past, size of order, monetary limits put in place, numbers of mishandled orders, etc. (Paragraph 40; Figure 4A.) The trust levels can identify the potentially varying levels of trust between entities in the project. Proxy capabilities identify who can do what on behalf of an entity. The trust parameters provide

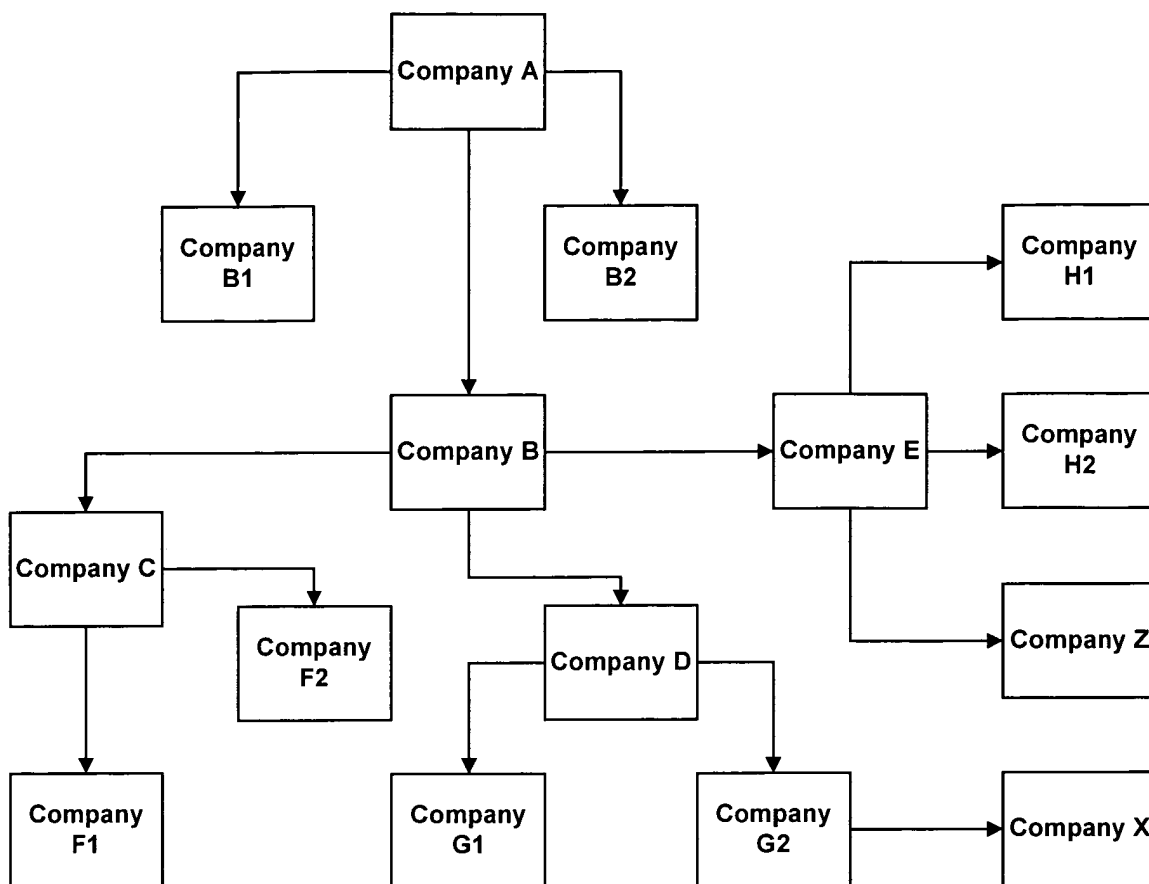
the ability to classify the nature of a business relationship and the level to which an enterprise is confident in sharing information. Information may vary from the number and type of items to be purchased to, e.g., strategic plans on entering a new market with a new product.

Trust component 405 may include two or more portions such as, for example, a portion directed to entity trust portion 407 and a portion directed to transactional trust portion 409. (Paragraph 41; Figure 4A.) Entity trust portion 407 may be a list or other data structure that stores the distinguishing characteristics of those companies with which one has or desires to have a business relationship. The entity trust can define or describe the dependability, reliability and/or credibility of the entities included in the list or data structure.

Transactional trust portion 409 is typically a list or data structure that stores the parameters that define business exchanges within a particular industry segment. (Paragraph 43; Figure 4A.) Transactional trust portion 409 can include information about the types of transactional activities that can take place and proxy actions available to cooperating entities. Further, transactional trust portion 409 can capture criteria related to conducting a single business transaction. These criteria may be divided between proxy and activity-trust parameters, and may be included in one or more transactional trusts (e.g., transactional trust lists).

In a typical business environment companies know and trust certain other companies. There may be a large number of companies, which are unknown at any given point in time. (Paragraph 51; Figure 6.) Furthermore, in the business world one company may not trust another company for any type of business transaction, or it may have very high level of trust in another company. FIG. 6 depicts one example of a business community in which company A knows and has a business relationship with companies B, B1 and B2. Company B knows and has business

relationships with companies C, D and E. Company C knows and has business relationships with companies F1 and F2, company D knows and has business relationships with companies G1 and G2, company E knows and has business relationships with companies H1, H2, and Z, and company G2 knows and has business relationships with company X. There are no degrees of separation between companies A and companies B, B2 and B3. However, there is one degree of separation between company A and companies C, D and E. There are two degrees of separation between company A and companies F1, F2, G1, G2, H1 and H2. There are three degrees of separation between company A and company X. Company A is able to establish a business relationship at a specified trust level with a company such as a company Z, which A does not know and which is separated in the present example by two degrees of separation. Company A is also termed a seeking entity, company Z is also termed a sought entity, and the other companies are also termed intermediate entities.

**FIG. 6**

In one implementation pertaining to an ongoing business setting, each company has a partnership record, which defines its activity and level of trust with another respective business partner. (Paragraph 52; Figure 7.) FIG. 7 shows one example of a partnership record 700, which has an active trust domain 702 and capability domain 704. In this example there are four activity-trust levels that a company assigns to other companies: a level one (706) in which a company essentially has little or no trust in the other company in a business sense, a level two (708) which is referred to as a commodity associate trust level, a level three (710) which is referred to a competitive advantage trust level, and a highest trust—level four (712)—which is

referred to as a strategic trust level. In short, the levels 706-712 identify the closeness of the trust relationship.

**702** Active Trust Domain

**704** Capability Domain

Trust Level Label	Design / 714	Source / 716	Plan / 718	Buy / 720	Make / 722	Sell / 724	Fulfill / 726	Service / 728
1 None or Street	RFI/RFP	Send manual RFx	Base on forecast	Send purchase orders	None	View catalog	Receive sales orders	Call center support
2 Commodity Associate	Share specs	Electronic access to RFx process	Share forecast demand	VMI	None	Dynamic pricing, configuration	VMI	Field service support
3 Competitive Advantage	Share CAD	Share confidential RFx information	Collaborative forecasts	Share production forecast	Production visibility	Customer catalog, share forecast	Share production forecasts	View inventory
4 Strategic	Collaborative access to systems	Collaborative design of new product	Actual demand sharing	CPFR	Production schedule collaboration	Actual demand sharing	CPFR	Parts replenishment, warranty processing

712 710 730

**FIG. 7**

The capability domain 704 can be divided into one or more functions or roles that companies fulfill in business transactions between one another. (Paragraph 53; Figure 7) Typically, the functions or roles are defined by the nature in which the two entities interact. These functions or roles can include, but are not limited to: design 714, source 716, plan 718, buy 720, make 722, sell 724, fulfill 726 and service 728.

In FIG. 7, various roles or functions that a particular company might fulfill are depicted for each of the elements 714-728 of the capability domain 704 and for each of the trust levels 706-712 in the active trust domain 702. (Paragraph 54; Figure 7.) Thus, using the partnership record, referring again to FIG. 6, company A is able to classify the roles that each of the

companies B, B-2 and B-3 will fulfill along with a transitive trust level for each of these companies. Each of the companies in the transitive trust network of the present invention has a database for storing the information as depicted in FIG. 7, for example, with regards to its business relationships with other companies.

Within each of these capability domains 714-728, it is possible to classify the level at which information is shared to any one partner in the capability function. (Paragraph 55; Figure 7.) Thus, an enterprise can break down its partners within a capability function into one of the trust levels 706-712. In this example of the present invention, depicted in FIG. 7, four levels of activity trust or process levels 706-712 are defined for any one of the eight capability domains 714-728. As noted above, the labels given to these four levels 706-712 of activity trust 702, in order of one to four, correspond to deeper levels of trust afforded to a partner.

Typically for any activity trust level 706-712 in a specific capability domain 714-728, there is an associated business process. (Paragraph 56; Figure 7.) A specific business process is defined at the intersection of each activity trust level label 706-712 with each role in the capability domain 714-728 as illustrated in FIG. 7. For any business function, there are often four different levels of processes, which can be placed in order of the level of trust that one associates with that partner. As an example, “design” 714 in the capability domain 704 and “strategic” 712 in the active trust domain 702, could correspond to the business process of “collaborative access to systems” 730.

Exemplary characteristics of each of the four activity trust level labels 706-712 used in the above example help to clarify the level of relationship afforded an entity when looking at that entity's function. (Paragraph 57; Figure 7.) For example, in level one 706, there is either no Trust

or “Street” level Trust. This could indicate that the entity is: a known business entity, but not necessarily a past business acquaintance; willing to extend standard terms of credit; willing to send purchase orders. This designation could also mean that there is no validation existing for this entity’s performance or reliability.

Level two is termed “Associate” 708 and could, as an example, have the following characteristics: the company has done business in the past; the company is known to be reputable and has met the needs of a close partner; the company is willing to extend credit; and the company is allowed to perform certain functions, such as Vendor Managed Inventory (“VMI”). (Paragraph 58; Figure 7.)

Level three is termed “Competitive Advantage” 710 and could, for example, have the following characteristics: long term relationship; share planning and forecasting information; consulting with the company regarding company direction and plans; and sharing of files and some access to systems. (Paragraph 59; Figure 7.)

Level four is termed “Strategic” 712 and could, for example, have the following characteristics: integration between systems; access to one another’s systems; and include/participate in strategic planning and forecasting. (Paragraph 60; Figure 7.)

The determination of an activity trust level 706-712 for a particular entity is often a subjective judgment. (Paragraph 61; Figure 7.) A given entity may fill one of a few functions 714-728 in a given capability domain 704 and operate at different levels 706-712 for each function. A determination could be made or rule applied (for example, at least common denominator in level of trust afforded) with regards to the given entity. The length of time since any activity is performed with an entity may also be a factor. A competitive-advantage entity



that has not transacted business with the partner in question within the last year could, for example, be automatically re-classified as having an “Associate” level 708 of activity trust. This is because over time many alliance or marketplace changes may have taken place, and it is necessary to re-evaluate the relationship before a high level of trust is again afforded.

Because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. (Paragraph 62.) As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for specifying a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of “strategic,” a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

A seeking company may be linked to a sought company by more than one path. In this case, the seeking company may choose to rely on the activity trust level associated with the path having the fewest degrees of separation. (Paragraph 63.) Alternatively, the seeking company may consider other factors, such as the activity trust levels assigned to the intermediate companies. For example, the seeking party may give more weight to an activity trust level associated with a path having more degrees of separation when the intermediate companies in that path have higher activity trust levels. Of course, there are a number of different ways that a seeking party can weigh, average or otherwise consider activity trust levels obtained from more than 1 path.

A company may need to find a new company to fulfill a particular role. (Paragraph 64; Figures 8-9.) It may be important that the new company can be trusted to fulfill that role. FIG. 8 depicts an example of the method of the present invention and FIG. 9 is a flowchart depicting the steps corresponding to FIG. 8. As depicted in FIG. 8, company Z (and all other companies in the transitive trust network) has a list 802 of trusted users, a database 804 of digital rights (that is, the partnership record) for each of the trusted users in the list 802, and a list 806 of active peers (that is for example, companies which are currently online with the present company). In a first step 901, company A is contacted by company Z regarding potential business transactions. In a second step 902, company A checks its trusted user list and finds that company Z is not contained therein. That is, company Z is not known to company A. The companies contained in the trusted users list for company A are companies B, L, M, N and O. At this point in time, companies L, M, N and O are not online and thus the only active peer is company B. In a step 903, company A wants to find out if company Z falls within three degrees of separation in its trust network. Company A then queries its trusted users (company B) to determine who is available or active for peer requests. In step 904, company B responds and is an active peer. In step 905, company B verifies a rights management model that exists between itself and company A. A rights management model is a set of rules or rights used to determine the type of information that may be exchanged between companies. It is now been determined that company A is authorized to send "do you know" queries to company B. In step 906, company A asks company B if company Z is known to it, specifying a maximum of three degrees of separation. In step 907, company B will query its trusted users to find active peers.

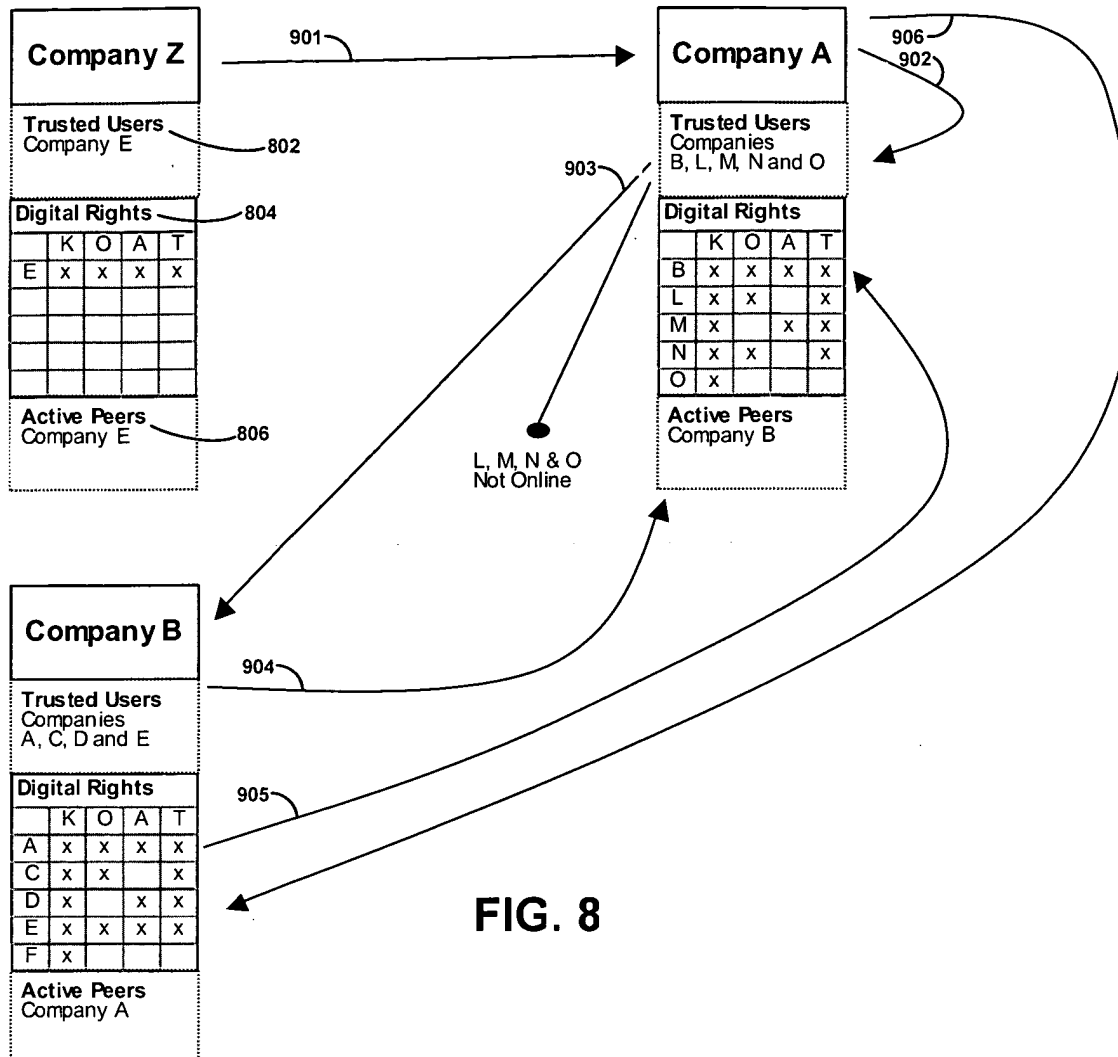
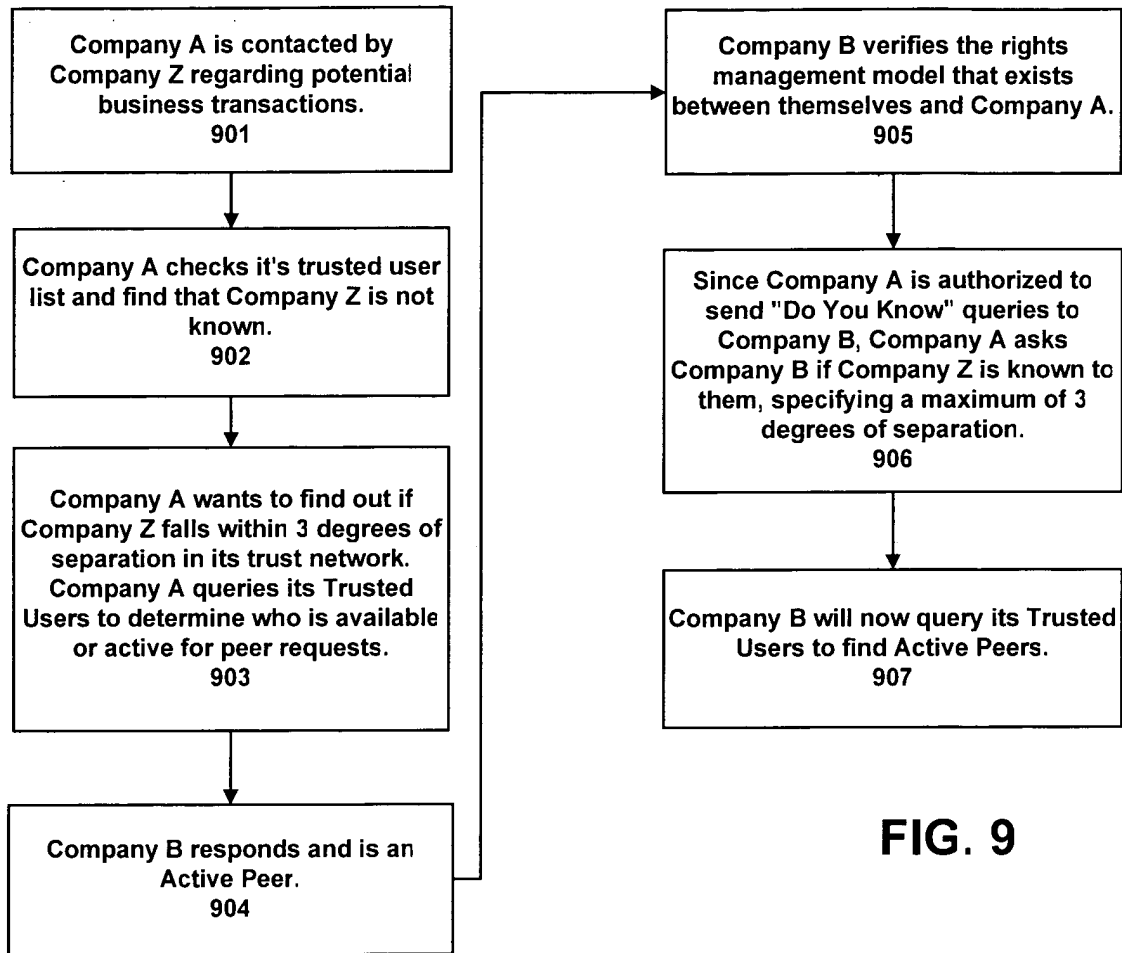
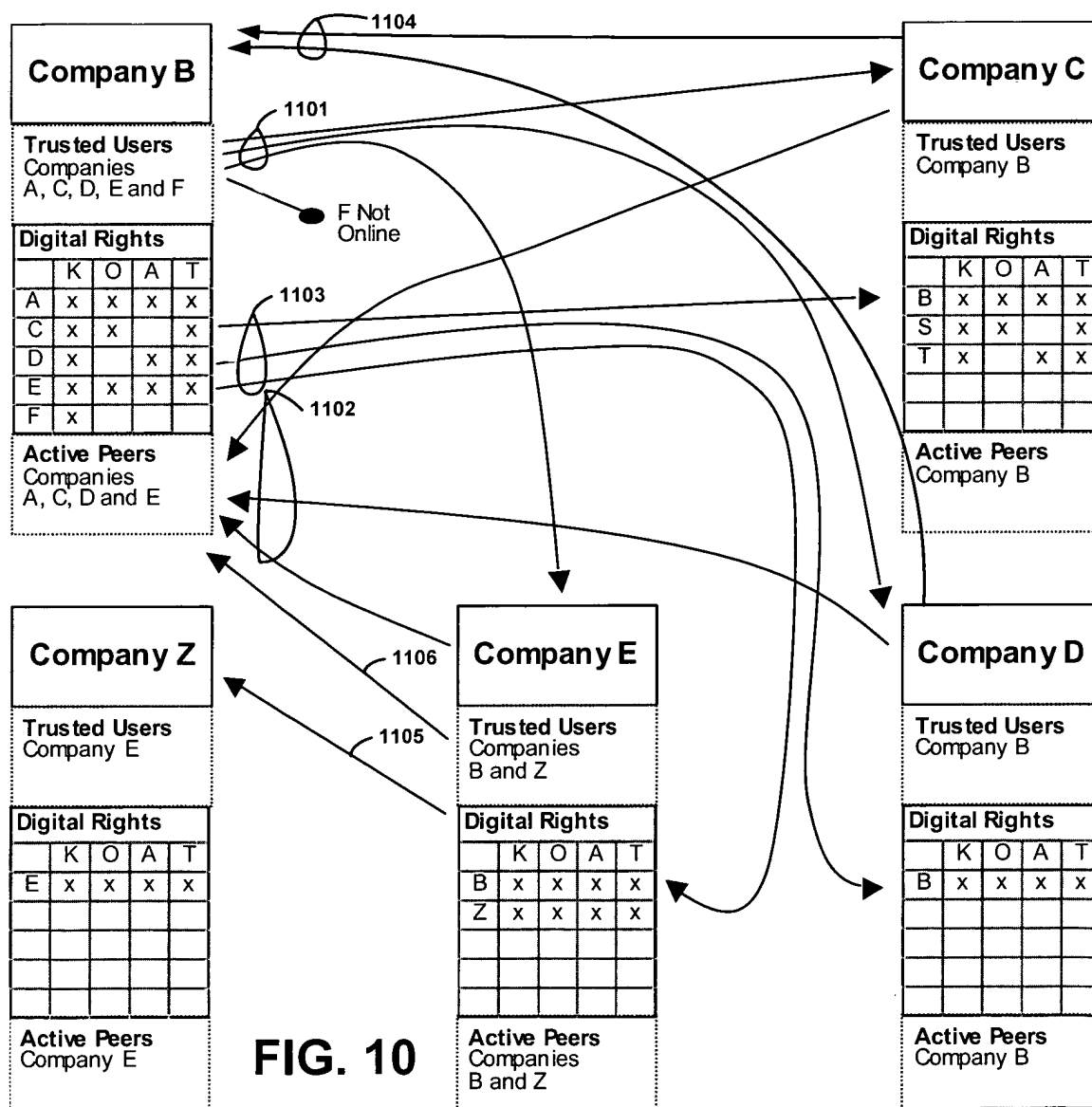


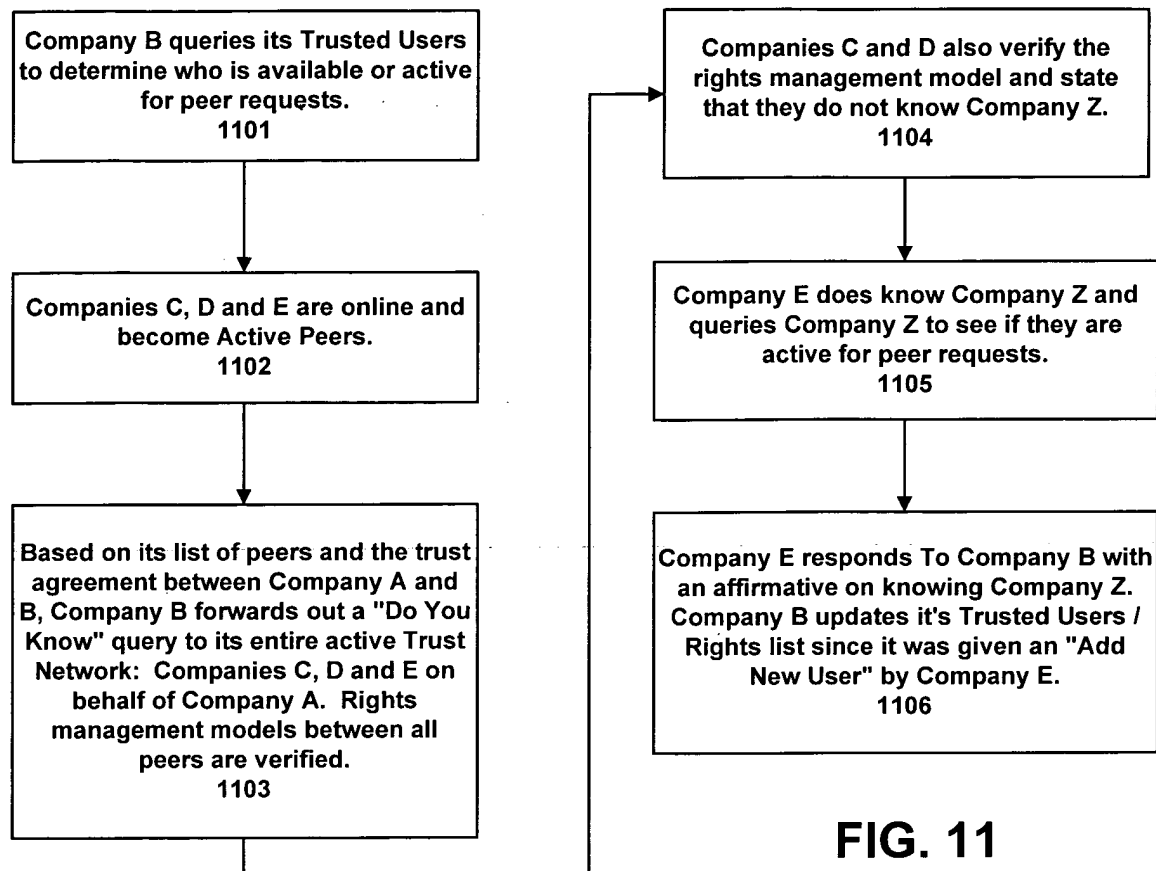
FIG. 8

**FIG. 9**

The interaction between the companies is further depicted in FIG. 10 and in the corresponding flowchart of FIG. 11. (Paragraph 65; Figures 10-11.) In step 1101 company B queries its trusted users to determine who is available or active for peer requests. Of its trusted users, company F is not online, but companies C, D and E are online and become active peers (see step 1102). Based on its list of peers and the trust agreement between company A and company B, company B in step 1103 forwards out a "do you know" query to its entire active trust network, that is company C, D and E on behalf of company A. Again, rights management models between all peers are verified using any set of rules or rights that can determine the type of information that may be exchanged between companies. In step 1104 companies C and D also verify the rights management model and state that they do not know company Z. In step

1105 company E, which does know company Z, queries company Z to determine if company Z is active for peer requests. In step 1106 company E responds to company B with an affirmative on knowing company Z. Company B in response thereto updates its trusted users/rights list.





Continuing now with the method as depicted in FIG. 12 and a corresponding flowchart in FIG. 13, company B in step 1301 notifies company A that it does know company Z through three degrees of separation (specifically through company E). (Paragraph 66; Figures 12-13.) In step 1302 company B also passes transitive trust rights to company A that allow company A to receive information from company E. In step 1303 company A establishes contact with company E through the trust passed by company B. In step 1304 company A now queries company E for an “opinion” regarding company Z. Company E then provides feedback based on the rights rules. Finally, in step 1305 company A agrees to further contact with company Z. Company A can now establish a business relationship with company Z with some degree of trust, because company A trusts company B who trusts company E.

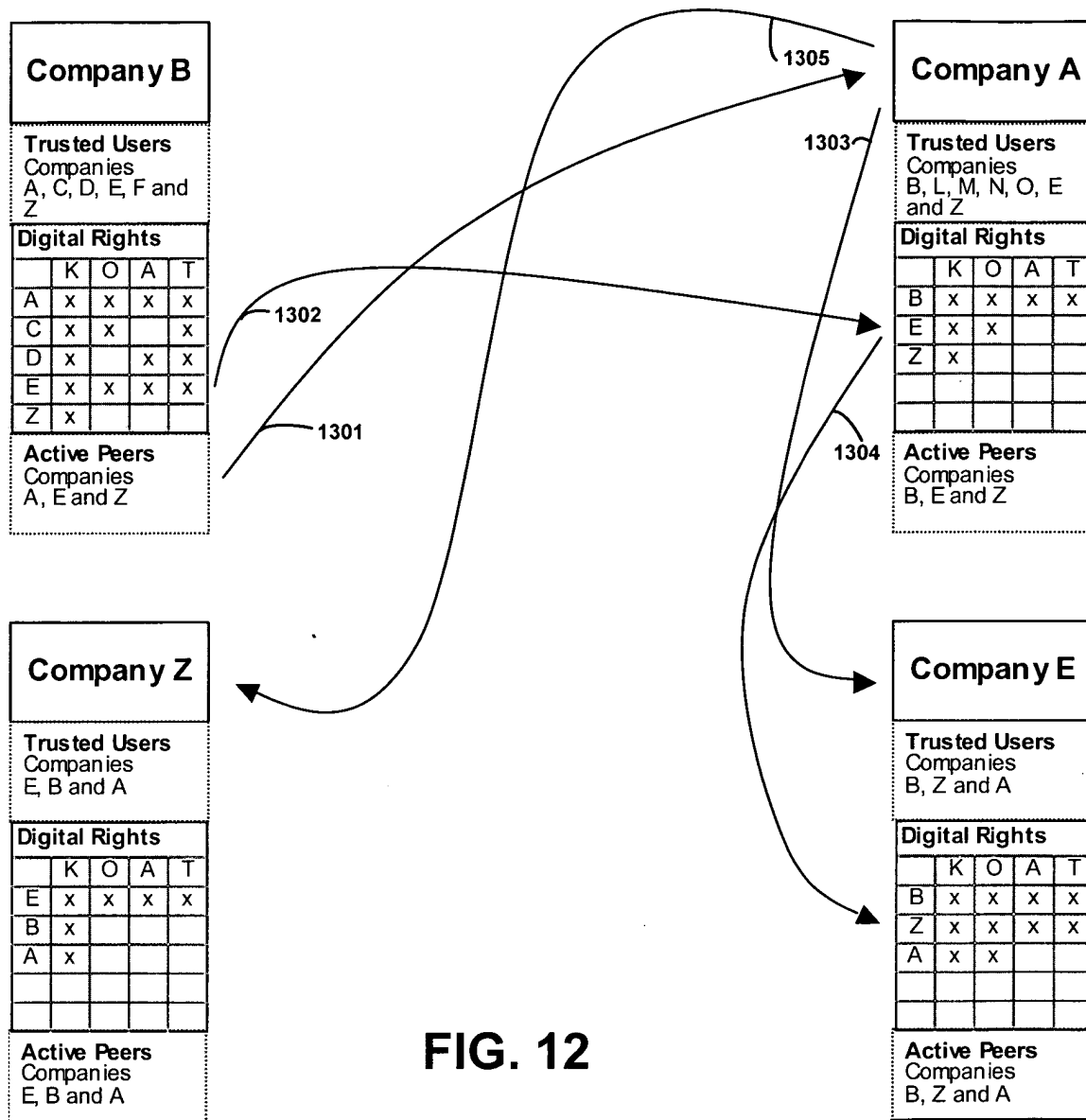
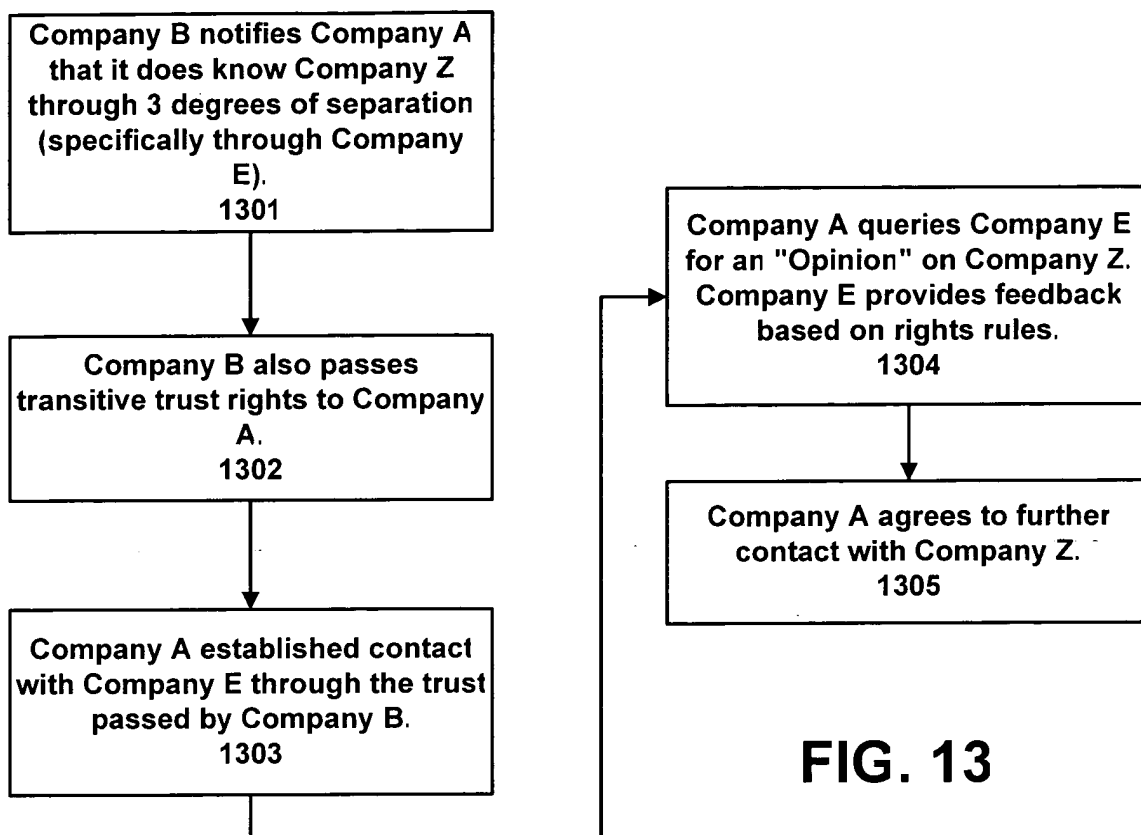
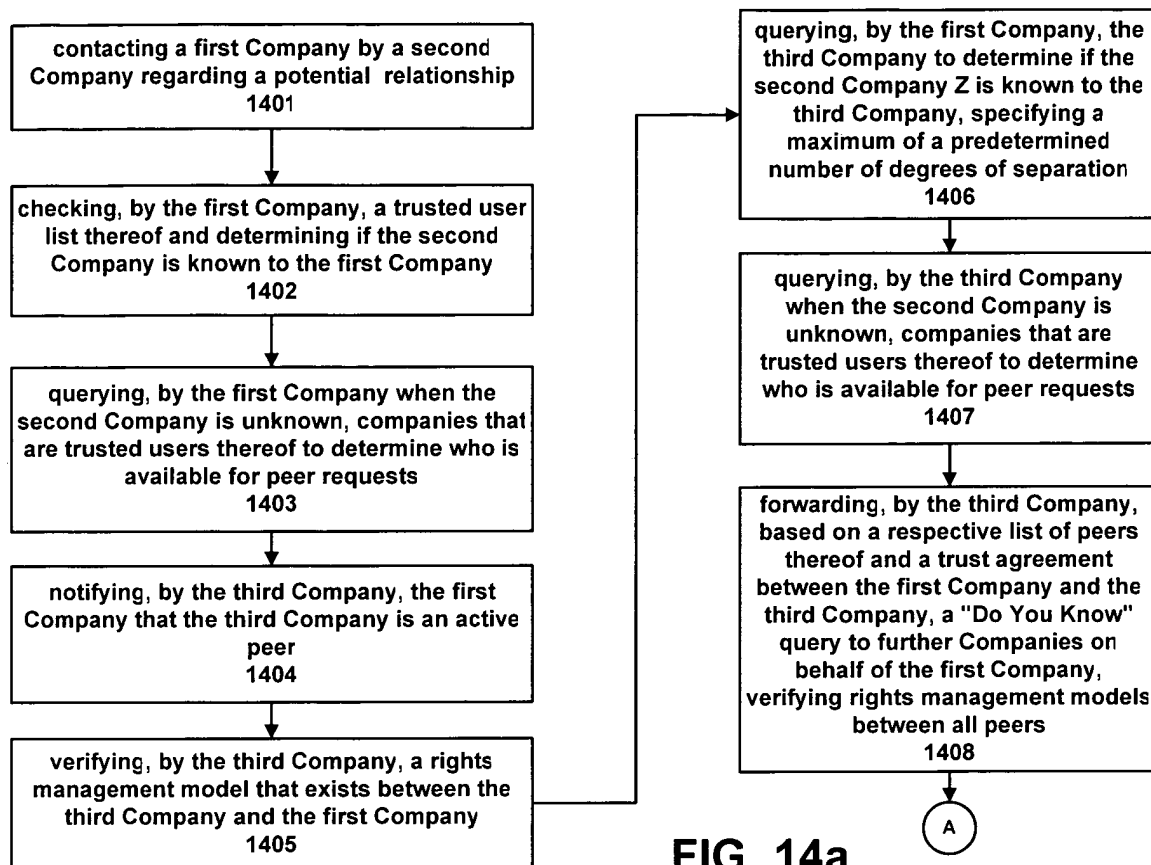


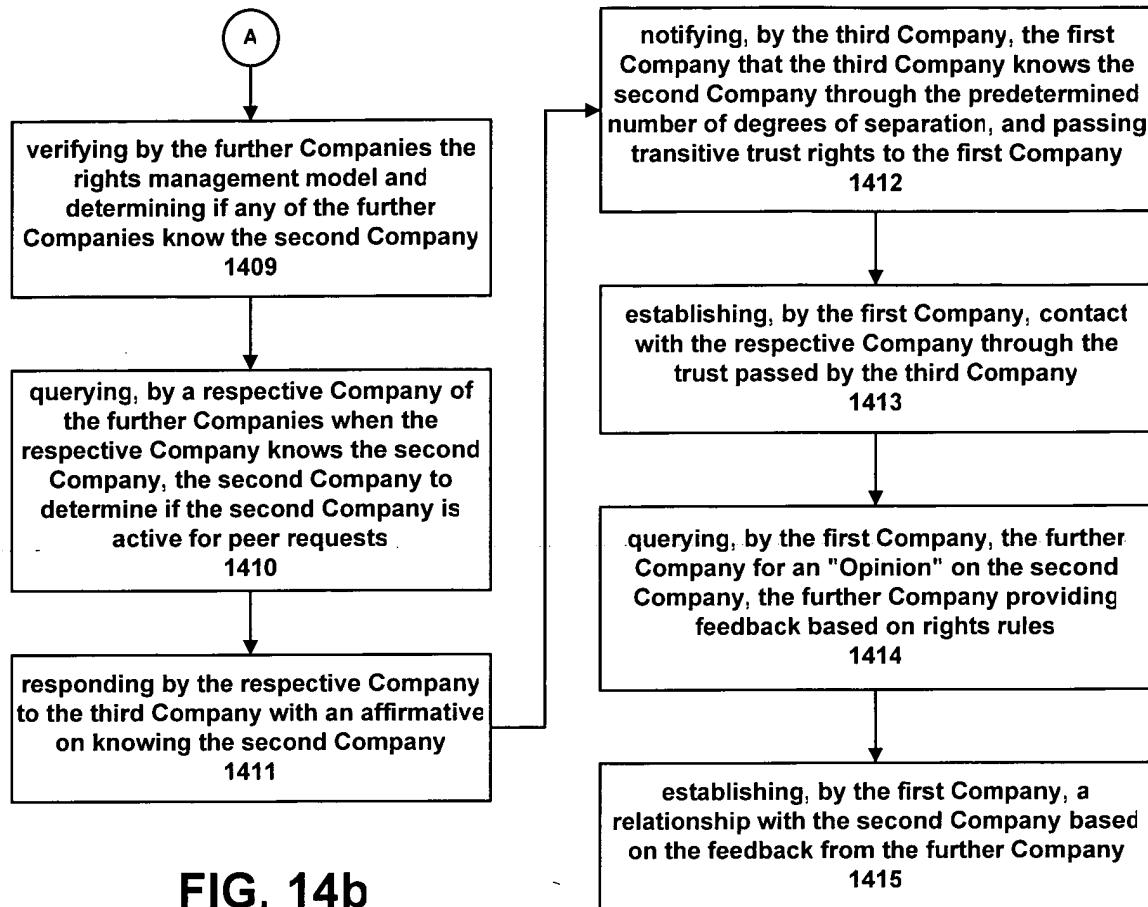
FIG. 12



This method may be embodied in a network such as depicted in FIG. 4b. In this network 400 each of the networks, 402, 404, 406, has a computer (such as service unit 408 in network 402) and storage (such as storage element 410 in network 402). (Paragraph 67; Figures 1 and 4B.) Referring to FIG. 1 (not shown in this paper), computer 100 includes a central processor 110 and a system memory (storage) 112. As is known, instructions that are executed by the processor are storable on the storage. FIGS. 14a and 14b depict a flowchart of a further embodiment of a method of the present invention that is executable in computer environments such as depicted in FIG. 4b. In step 1401, a first company is contacted by a second company with regards to a potential business transaction (effected by, for example, an inquiry receiving component corresponding to an instruction contained in the storage). This potential transaction may be type of business transaction such as for the sale of goods.





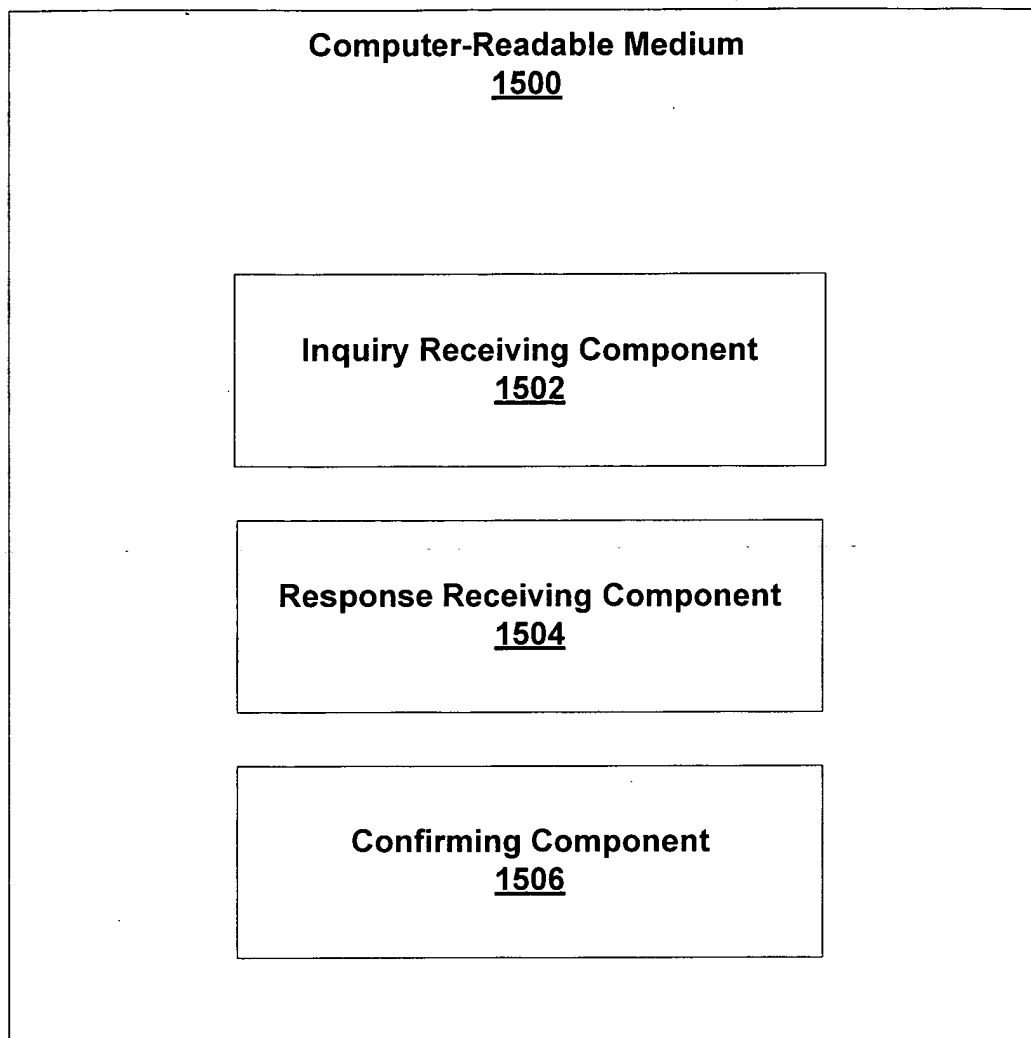


In step 1402, the first company checks its trusted user list and determines if the second company is known to the first company. This step 1402 may include searching a database of known users. (Paragraph 68; Figure 14.) In step 1403, the first company queries companies that are trusted users thereof to determine who is available for peer requests (e.g., which companies are online or otherwise available). In step 1404, a third company notifies the first company that the third company is an active peer and is available to communicate with the first company. In step 1405, the third company verifies a rights management model that exists between the third company and the first company in order to determine the types of information that may be exchanged. In step 1406, the first company queries the third company to determine if the second company is known to the third company. The first company also specifies a predetermined

number of degrees of separation. For example, the first company may query the third company to determine if the second company is known to the third company through four degrees of separation.

In step 1407, the third company queries the further companies that are trusted users thereof to identify companies that are available for peer requests. (Paragraph 69; Figure 14.) In step 1408, a third company forwards, based on a respected list of peers and a trust agreement between the first company and the third company, a “do you know” query to the further companies on behalf of the first company, verifying rights management models between all peers. In step 1409, the further companies verify the rights management model and determine if any of the further companies know the second company. In a step 1410, a respective company of the further companies that the second company is known to, queries the second company to determine if the second company is active for peer requests. In step 1411, a respective company responds to the third company and indicates that it knows the second company. In step 1412, the third company notifies the first company that the third company knows the second company through the pre-determined number of degrees of separation, and passes transitive trust rights to the first company (effected by, for example, a response receiving component corresponding to an instruction contained in the storage). In step 1413, the first company establishes contact with the respective company through the trust passed by the second company. In step 1414, the first company queries the further company for an “opinion” regarding the second company, the further company then providing feedback based on rights rules (effected by, for example, a confirming component corresponding to an instruction contained in the storage). Finally, in step 1415, the first company establishes a relationship with the second company based on the feedback from the further company.

The above methods or variations may be implemented by using one or more computer-executable components or sets of instructions as illustrated in FIG. 15. (Paragraph 70; Figure 15.) More particularly, one or more computer-readable media 1500 could store computer-executable components or sets of instructions in order to enable entities to discover, extend, validate and/or establish business relationships over a network. In this embodiment, the computer-executable components could include an inquiry receiving component 1502, which could receive inquiries from a seeking entity that wishes to establish a business relationship with a sought entity. The components could also include a response receiving component 1504, which could receive responses from other entities (*e.g.*, an intermediate entity). These responses might, for example, identify whether a relationship exists between the sought entity and the intermediate entity. Moreover, the components might also include a confirming component 1506 for confirming, based on the response, that the new relationship may be established.

**FIG. 15****Description of Independent Claims**

Independent claim 1 is directed to a computer-readable medium having computer-executable components in order to enable business entities to discover, extend, validate, and/or establish business relationships over a network. (Paragraph 70; Figure 15.) The components include an inquiry receiving component that receives an inquiry from the seeking entity (paragraph 70; Figure 15, component 1502), a response receiving component that receives a

response indicating an existing relationship between the sought entity and an intermediate entity (paragraph 70, Figure 15, component 1504), a confirming component that confirms that the new relationship may be established (paragraph 70; Figure 15, component 1506), and a verification component that determines whether information can be shared between entities in accordance with rights management (paragraph 64; Figure 9, step 905; paragraph 68; Figure 14, step 1405).

Independent claim 2 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps of generating at least one entity trust list containing at least one characteristic of at least two of the entities, in which a level of trust is gauged by the at least one characteristic (paragraph 41; Figure 4A, component 407), generating at least one transactional trust list containing at least one parameter relative to an exchange between at least two of the entities through at least one degree of separation between the entities (paragraph 43; Figure 4A, component 409), and creating at least one receiving component that obtains information from the at least one entity trust list and the at least one transactional trust list (paragraph 39; Figure 4A). One of the parameters includes a proxy parameter that is indicative of an action that a trusted party can perform on behalf of a trusting party (paragraph 44).

Independent claim 13 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps of generating an entity trust list containing at least one characteristic of at least two of the entities, in which a level of trust is gauged by the at least one characteristic (paragraph 41; Figure 4A, component 407), generating a transactional trust list containing at least one parameter

relative to an exchange between at least two of the entities through at least one degree of separation between the entities (paragraph 43; Figure 4A, component 409), generating a capability domain and activity trust level data base for each of the at least two entities, in which the data base has a plurality of levels of trust and a plurality of entity roles (paragraph 54; Figure 7), and creating at least one receiving component that obtains information from the entity trust list and the transactional trust list (paragraph 39; Figure 4A). One of the parameters is a proxy parameter, which is indicative of an action that a trusted party can perform on behalf of a trusting party (paragraph 44). The capability domain and activity trust data base contains a plurality of entries, where each entry is indexed by an entity role and a level of trust and is indicative of a corresponding business process (paragraph 54; Figure 7).

Independent claim 17 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps of configuring a capability domain and activity trust level data base for each of the at least two entities (paragraph 54; Figure 7) and creating at least one receiving component that obtains information from an entity trust list and a transactional trust list (paragraph 39; Figure 4A). The database has a plurality of levels of trust and a plurality of entity roles, in which each entry is indexed by an entity role and a level of trust and is indicative of a corresponding business process (paragraph 54; Figure 7).

Independent claim 21 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps of configuring a capability domain and activity trust level data base for each of the

at least two entities (paragraph 54; Figure 7) and creating at least one receiving component that obtains information from an entity trust list and a transactional trust list (paragraph 39; Figure 4A). The database has a plurality of levels of trust and a plurality of entity roles, in which each entry is indexed by an entity role and a level of trust and is indicative of a corresponding business process (paragraph 54; Figure 7).

Independent claim 23 is directed to a method, in a computer system, of establishing a relationship with an unknown company. (Paragraph 64; Figure 9.) The method includes the step of querying, by a first computer to a second computer in which at least one trusted company determines the existence of a relationship between the at least one trusted company and the unknown company (paragraph 64; Figure 9, steps 904-906). The method then includes a step of receiving, by the first computer, a confirmation of a relationship between the at least one trusted company, where the confirmation is indicative of a trust level of the unknown company by one of the at least one trusted company and a corresponding valuation criterion and where the trust level of the unknown company is dependent on the corresponding valuation criterion (paragraph 66; Figure 13, step 1301). The method includes a subsequent step of establishing a relationship with the unknown company in response to receiving the confirmation (paragraph 66; Figure 13, step 1305).

Independent claim 24 is directed to a method, in a computer system, of establishing a relationship with an unknown company. (Paragraph 64; Figure 9.) The method includes the step of receiving, by an associated computer, at a second entity a contact identifying a first entity (paragraph 64; Figure 9, step 901). Subsequently, the method includes the steps of checking a list of trusted entities by the second entity to determine if the first entity is a trusted entity (paragraph 64; Figure 9, step 902) and querying, another computer by the associated computer, if the first



entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward requests to other trusted parties, the trusted entities and specifying a predetermined degree of separation (paragraph 64; Figure 9, step 903). The method then includes the step of establishing a relationship between the first and second entities when the first entity is known by at least one respective entity of the trusted entities, where the relationship is based on information from one of the trusted entities and the information is indicative of a trust level about the first entity (paragraph 66, Figure 13, step 1305).

Independent claim 30 is directed to a method, in a computer system, of establishing a relationship with an unknown company. (Paragraph 64; Figure 9.) The method includes the step of receiving, by an associated computer, at a second entity a contact identifying a first entity (paragraph 64; Figure 9, step 901). Subsequently, the method includes the steps of checking a list of trusted entities, associated with the second entity, by the second entity to determine if the first entity is a trusted entity (paragraph 64; Figure 9, step 902) and querying, another computer by the associated computer, if the first entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward requests to other trusted parties, by the second entity at least a third entity of the trusted entities associated with the second entity, and specifying a predetermined degree of separation (paragraph 64; Figure 9, step 903). The method then includes the steps of checking a list of trusted entities, associated with the third entity, by the third entity to determine if the first entity is a trusted entity (paragraph 64; Figure 9, step 907) and continuing querying and checking, if the first entity is not a trusted entity, until a maximum separation of the degree of separation is reached or until the first entity is known to a respective trusted entity (paragraph 51; Figure 6). The method then includes the step of establishing a relationship between the first and second entities when the first entity is known by at least one

respective entity of the trusted entities, where the relationship being based on information from one of the least one respective entity and the information being indicative of a level of trust about the first entity (paragraph 66, Figure 13, step 1305).

Independent claim 35 is directed to a method of establishing a relationship with an unknown company. (Paragraph 64; Figure 9.) The method includes the steps of contacting a first company by a second company regarding a potential relationship (paragraph 64; Figure 9, step 901) and checking, by the first company, a trusted user list and determining if the second company is known to the first company (paragraph 64; Figure 9, step 902). The method then includes the steps of querying, by the first company when the second company is unknown, companies that are trusted users to determine who is available for peer requests (paragraph 64; Figure 9, step 903) and notifying, by a third company, the first company that the third company is an active peer (paragraph 64; Figure 9, step 904). The method then includes the steps of verifying, by the third company, a rights management model that exists between the third company and the first company (paragraph 64; Figure 9, step 905) and querying, by the first company, the third company to determine if the second company is known to the third company, specifying a maximum of a predetermined number of degrees of separation (paragraph 64; Figure 9, step 906). The method subsequently performs the steps of querying, by the third company when the second company is unknown, companies that are trusted users to determine who is available for peer requests (paragraph 64; Figure 9, step 907) and forwarding, by the third company, based on a respective list of peers and a trust agreement between the first company and the third company, a "Do You Know" query to further companies on behalf of the first company, verifying rights management models between all peers (paragraph 65; Figure 11, step 1103). The method subsequently performs the steps of verifying by the further companies the rights

management model (paragraph 65; Figure 11, step 1105) and determining if any of the further companies know the second company and querying, by a respective company of the further companies when the respective company knows the second company, the second company to determine if the second company is active for peer requests (paragraph 65; Figure 11, step 1105). Subsequent steps include responding by the respective company to the third company with an affirmative on knowing the second company, in response to the “Do You Know” query (paragraph 65; Figure 11, step 1106) and notifying, by the third company, the first company that the third company knows the second company through the predetermined number of degrees of separation, and passing transitive trust rights to the first company (paragraph 66; Figure 13, step 1301). The method then performs the steps of establishing, by the first company, contact with the respective company through the trust passed by the third company (paragraph 66; Figure 13, step 1303) and querying, by the first company, the further company for an “opinion” on the second company, the further company providing feedback based on rights rules (paragraph 66; Figure 13, step 1304). The method then performs the step of establishing, by the first company, a relationship with the second company based on the feedback from the further company (paragraph 66; Figure 13, step 1304-1305).

Independent claim 36 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps for receiving at a second entity a contact identifying a first entity (paragraph 64; Figure 9, step 901), checking a list of trusted entities by the second entity to determine if the first entity is a trusted entity (paragraph 64; Figure 9, step 902), querying, if the first entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward

requests to other trusted parties, where the trusted entities and specifying a predetermined degree of separation (paragraph 64; Figure 9; step 903), and establishing a relationship between the first and second entities when the first entity is known by at least one respective entity of the trusted entities, where the relationship being based on information from one of the at least one respective entity and the information being indicative of a level of trust about the first entity (paragraph 66, Figure 13, step 1305).

Independent claim 37 is directed to a computer-readable medium with a stored data structure. (Figure 15; Paragraphs 39-45; Figure 4A). The data structure includes a capability domain having a plurality of entity roles within a predetermined degree of separation and an activity trust domain having a plurality of levels of trust (paragraph 52; Figure 7). A respective business process of a plurality of business processes is associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels, where the data structure is indexed by the capability domain and the activity trust domain to obtain a corresponding business process (paragraph 54; Figure 7).

Independent claim 44 is directed to a computer-readable medium having computer-executable instructions in order to provide a framework for entities to establish relationships between each other. (Figure 15; Paragraphs 39-45; Figure 4A). Computer-executable instructions perform steps for creating a trust component that stores a trust level for each directly interconnected entity and at least one corresponding valuation criterion for determining the trust level and that obtains an associated trust level of a sought entity through an interconnected intermediate entity if the sought entity is not directly interconnected to the selected entity (paragraph 39; Figure 4A) and creating a transactional component that provides peer-to-peer capability for sharing information with the other interconnected entity, the transactional

component utilizing information from the trust component (paragraph 39: Figure 4A). The trust component includes an entity trust portion that includes a first data structure, where the first data structure stores a distinguishing characteristic of each said directly interconnected entity and the degree of trust is indicative of the distinguishing characteristic and a transactional trust portion that includes a second data structure, where the second data structure includes a plurality of transactional parameters and the plurality of transactional parameters is indicative of criteria for conducting the new business relationship (paragraph 39). The plurality of transactional parameters includes a proxy parameter that is indicative of an activity, where the activity is performed by a trusted party on behalf of a trusting party (paragraphs 40 and 44). The plurality of activity-trust parameters is indexed by an activity trust domain and a capability domain, where the activity trust domain is indicative of an activity trust level, the capability domain is indicative of an activity process level, and each activity-trust parameter is indicative of an associated business process (paragraphs 45, 52, and 53).

**VI. Grounds of Rejection to be Reviewed on Appeal**

Claims 1-44 are rejected under 35 U.S.C. 101 because the claimed invention is not within the technological arts and consequently is directed to non-statutory matter.

Claims 1 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2002/128939 (Tarrant).

Claims 2-12, 21-24, 30, 35-36, and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/128939 (Tarrant) in view of US 2002/0078003 (Krysiak).

Claims 13-20, 25-29, 31-34, 37-39, and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/128939 (Tarrant) and US 2002/0078003 (Krysiak) in view of US 2002/0152086 (Smith).

## **VII. Argument**

The following claims are grouped in the seven indicated groups: (a) claim 1; (b) claims 2-12; (c) claims 13-16 and 40-41; (d) claims 17-20; (e) claims 21-22; (f) claim 23; (g) claims 24-29 and 42; (h) claims 30-34 and 43; (i) claim 35; (j) claim 36; (k) claims 37-39; and (l) claim 44.

### **A. Claims 1-44 are directed to statutory subject matter.**

The Office Action rejects claims 1-44 because the Office Action alleges (Page 2):

Claims 1-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory statutory subject matter. The claimed invention is not within the technological arts.

Referring to *In re Toma* (575 F. 2d 872, 197 USPQ 852 (CCPA 1978), *Ex parte Bowman* (61 USPQ2d 1669 (Bd. Pat. App. & Int. 2001)(non-precedential), and *In re Musgrave* (431 F.2d 882, 167 USPQ 280 (CCPA 1970), the Office Action further alleges (Page 4.):

Contrary to the claims in the above-cited cases, in the present application, the claims are completely silent with regard to technology and is purely an abstract idea or process steps that are employed without the use of technology.

However the rejections of claims 1-44, as discussed above, are improper and are contrary to the decision of *Ex parte Lundgren*, Appeal No. 2003-2088, Application 08/093,516. The Board asserts (Page 4. Emphasis added.):

The examiner finds the separate “technological arts” test *In re Musgrave*, 431 F.2d 882, 167 USPQ 280 (CCPA 1970); *In re Toma*, 575 F.2d 872, 197 USPQ 852 (CCPA 1978); and *Ex parte Bowman*, 61 USPQ2d 1669 (Bd. Pat. App. & Int. 2001)(non-precedential). We have reviewed these three cases and **do not find** that they support the examiner’s separate “technological arts” test.

The Board further notes (Page 3. Emphasis added.):

Since the Federal Circuit has held that a process claim that applies a mathematical algorithm to “produce a **useful, concrete, tangible** result without pre-empting other uses of the mathematical principle, on its face comfortably falls within the scope of § 101,” *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999), one would think there would be no more issues to be resolved under 35 U.S.C. § 101. However, the examiner is of

the opinion that there is a separate test for determining whether claims are directed to statutory subject matter, i.e., a “technological arts” test.

The Board further asserts (Page 5. Emphasis added.):

Our determination is that there is currently no judicially recognized separate “technological arts” test to determine patent eligible subject matter under § 101. **We decline to create one.**

However claims 1-44 are directed to results that produce useful, concrete, and tangible results in concert with the criteria set forth by *AT&T Corp. v. Excel Communications, Inc.*

The “technological arts” test is no longer proper. Accordingly, the rejections of claims 1-44 under 35 U.S.C. 101 should be reversed.

**B. Claim 1 Is Not Anticipated Because Tarrant Does Not Teach Every Feature.**

The Final Office Action alleges that US 2002/0128939 (Tarrant) teaches all of the features claimed in claim 1 and rejects the claim under 35 U.S.C. 102(e). However, Tarrant does not teach or even suggest the feature of “a verification component for determining whether information can be shared between entities in accordance **with rights management.**” (Emphasis added.) As disclosed in the present specification (Paragraph 64.):

In step 905, company B verifies a rights management model that exists between itself and company A. A rights management model is a set of rules or rights used to determine the type of information that may be exchanged between companies.

For example, depending on the business arrangement, companies may determine the type of information that is exchanged. However, Tarrant discloses (Paragraph 18. Emphasis added.):

...in response to the request to the request from the second user, transmitting **the data** from the relational database to the second user computer, wherein, absent a request form the user for data from a specific source or level of trustworthiness, **the data** transmitted comprise data from users of the highest level of trustworthiness available.



Tarrant merely discloses exchanging all data for a level of trustworthiness and does not suggest anything about rights management. Tarrant does not teach all of the features of claim 1. Thus, the rejection of claim 1 under 35 U.S.C. 102 should be reversed.

**C. Claim 44 Is Not Anticipated Because Tarrant Does Not Teach Every Feature.**

The Final Office Action alleges that US 2002/0128939 (Tarrant) teaches all of the features claimed in claim 44 and rejects the claim under 35 U.S.C. 102(e). However, Tarrant does not teach or even suggest the feature of a “plurality of transactional parameters comprising: a **proxy parameter** that is indicative of an activity, the activity being performed by a trusted party on behalf of a trusting party; and a plurality of **activity-trust parameters** being indexed by an activity trust domain and a capability domain, the activity trust domain being indicative of an activity trust level, the capability domain being indicative of an activity process level, each activity-trust parameter being indicative of an associated business process”. (Emphasis added.) As discussed in the present specification, a proxy parameter affects requests to other trusted parties (paragraph 44) and an activity-trust parameter qualifies the level or nature of a business relationship (paragraph 45). The Final Office fails to even discuss this feature while alleging that Tarrant teaches all of the features of claim 44. Moreover, Tarrant fails to disclose anything about the above types of parameters. Tarrant does not teach all of the features of claim 44. Thus, the rejection of claim 44 under 35 U.S.C. 102 should be reversed.

**D. Claims 2-12 Are Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 2-12 are unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). Regarding independent claim 2, the proposed combination of Tarrant and Krysiak fail to even

suggest the feature of “generating at least one transactional trust list containing at least one parameter relative to an exchange between at least two of the entities through at least one degree of separation between the entities, the at least one parameter comprising a **proxy parameter**, the proxy parameter being indicative of an action that a trusted party can perform on behalf of a trusting party.” (Emphasis added.) As discussed in the present specification, a proxy parameter affects requests to other trusted parties, e.g., whether a party can forward requests to other trusted parties (paragraph 44). The Final Office fails to even discuss this feature. Neither Tarrant nor Krysiak fail to suggest this feature. Moreover, claims 3-12 ultimately depend from claim 2 and are patentable for at least the above reasons. Thus, the rejection of claims 2-12 under 35 U.S.C. 103 should be reversed.

**E. Claims 21-22 Are Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 21-22 are unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). Regarding claim 21, the Office Action admits that “Tarrant does not explicitly teach establishing a business relationship with the sought entity based on the response.” (Page 7.)

The Final Office alleges (Page 8):

Krysiak et al. teach a method for identifying information sources based on one or more trust networks associated with one or more knowledge domain, wherein a business relationship is established based upon an evaluation of trustworthiness of a sought party [0014].

However, Krysiak does not teach or even suggest the feature of “establishing the **new business relationship with the sought entity** based on the response, the response being indicative of a trust level of the sought entity by the intermediate entity and of a corresponding valuation

criterion, the trust level being dependent on the corresponding valuation criterion.” (Emphasis added.) Krysiak does teach (Paragraph 14. Emphasis added.):

The present invention eliminates the user's need to wade through numerous e-mail responses in conjunction with a widely-disseminated request for an information source. It also eliminates a user's reliance on Newsgroups to located desired information. **It efficiently and explicitly addresses the problem of expertise location within an organization.** It allows a database to learn from the types of information sources that users search for. It recognizes that the true value of most corporate information is the way in which it connects people to people, allowing them to share their expertise at the moment of inquiry, thus realizing and appreciating that cutting-edge thinking is always changing in a way that a traditional, static, and centrally-maintained knowledge database cannot capture. It accepts search requests for an information source and provides a path connection to the information source based on a computed trust probability that the information source will be deemed reliable. The computed probability reflects an individual's self-evaluation and various peer-evaluations in a given knowledge domain. **The present invention thus facilitates the selection of an expert within an organization by identifying various knowledge domains and the experts therewithin,** and then providing a most trusted path connection from that user to that expert through the trust network.

Krysiak merely discloses identifying expertise within an organization. Claim 22 depends from claim 21 and is patentable for at least the above reasons. Moreover, claim 22 includes the feature of “specifying an acceptable degree of separation and determining whether the existing relationship exists within the specified degree of separation.” The Office Action admits that (Page 8):

Tarrant teaches all of the limitations of claim 22, except specifying the degree of separations between entities.

However, Krysiak fails to teach anything about specifying a predetermined degree of separation. Specifying a predetermined degree of separation between parties may control the error (which may be magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of "strategic," a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.,  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.,  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a predetermined degree of separation.

The rejections of claims 21-22 under 35 U.S.C. 103 should be reversed.

**F. Claim 23 Are Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claim 23 is unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). Regarding claim 23, the Office Action admits that “Tarrant does not explicitly teach establishing a business relationship with the sought entity based on the response.” (Page 7.) The Final Office alleges (Page 8):

The Final Office alleges (Page 8):

Krysiak et al. teach a method for identifying information sources based on one or more trust networks associated with one or more knowledge domain, wherein a business relationship is established based upon an evaluation of trustworthiness of a sought party [0014].

However, Krysiak does not teach or even suggest the features of “querying, by a first computer to a second computer, at least one trusted company to determine the existence of a relationship between the at least one trusted company and **the unknown company**,” and “establishing a relationship with the **unknown company** in response to receiving the confirmation.” (Emphasis added.) Krysiak does teach (Paragraph 14. Emphasis added.):

The present invention eliminates the user's need to wade through numerous e-mail responses in conjunction with a widely-disseminated request for an information source. It also eliminates a user's reliance on Newsgroups to locate desired information. **It efficiently and explicitly addresses the problem of expertise location within an organization.** It allows a database to learn from the types of information sources that users search for. It recognizes that the true value of most corporate information is the way in which it connects people to people, allowing them to share their expertise at the moment of inquiry, thus realizing and appreciating that cutting-edge thinking is always changing in a way that a traditional, static, and centrally-maintained knowledge database cannot capture. It accepts search requests for an information source and provides a path connection to the information source based on a computed trust probability that the information source will be deemed reliable. The computed probability reflects an individual's self-evaluation and various peer-evaluations in a given knowledge domain. **The present invention thus facilitates the selection of an expert within an organization by identifying various knowledge domains and the experts therewithin,** and then providing a most trusted path connection from that user to that expert through the trust network.

Krysiak merely discloses identifying expertise within an organization and with another company. Claim 23 is patentable over Tarrant in view of Krysiak. Thus, the rejection of claim 23 under 35 U.S.C. 103 should be reversed.

**G. Claims 24 and 42 Are Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature and Claims 25-29 Are Patentable At Least Because The Proposed Combination of Tarrant, Smith, and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 24 and 42 are unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). The Final Office Action further alleges that claims 25-29 are unpatentable of Tarrant and Krysiak in view of US 2002/0152086 (Smith). Regarding claim 24, the Final Office Action admits that (Page 9.):

Tarrant does not specifically teach querying another computer if the first entity is not a trusted entity and specifying the predetermined degree of separations (between the entities). Tarrant also does not explicitly teach establishing a business relationship with the sought entity based on the response.

The Office Action alleges that (Page 9.):

Krysiak et al. teach said method for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]. Also Krysiak et al. teach that a business relationship is established based upon an evaluation of trustworthy of a sought party [0014].

However, Krysiak does not even suggest the feature of “querying, if the first entity is not a trusted entity and if **a proxy parameter** is indicative that trusted entities are permitted to forward requests to other trusted parties, the trusted entities and **specifying a predetermined degree of separation.**” (Emphasis added.) Krysiak fails to teach anything about a proxy parameter and specifying a predetermined degree of separation. Specifying a predetermined

degree of separation between parties may control the error (which may be magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of "strategic," a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a predetermined degree of separation. Claim 42 depends from claim 24. Thus, claims 24 and 42 are patentable for at least the above reasons.

Regarding claims 25-29, the deficiencies of Tarrant and Krysiak are not remedied by Smith. Thus, claims 25-29 are patentable for the above reasons. The rejections of claim 24-29 and 42 under 35 U.S.C. 103 should be reversed.

**H. Claims 30 and 43 Are Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature and Claims 31-34 Are Patentable At Least Because The Proposed Combination of Tarrant, Smith and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 30 and 43 are unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). The Final Office Action further alleges that claims 31-34 are unpatentable of Tarrant and Krysiak in view of US 2002/0152086 (Smith). Regarding claim 30, the Final Office Action admits that (Page 10.):

Tarrant does not specifically teach querying another computer if the first entity is not a trusted entity and specifying the predetermined degree of separations (between the entities). Tarrant also does not explicitly teach establishing a business relationship with the sought entity based on the response.

The Office Action alleges that (Page 10.):

Krysiak et al. teach said method for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]. Also Krysiak et al. teach that a business relationship is established based upon an evaluation of trustworthy of a sought party [0014].

However, Krysiak does not even suggest the feature of “querying, another computer by the associated computer, if the first entity is not a trusted entity and if **a proxy parameter** is indicative that trusted entities are permitted to forward requests to other trusted parties, by the second entity at least a third entity of the trusted entities associated with the second entity, and **specifying a predetermined degree of separation.**” (Emphasis added.) Krysiak fails to teach



anything about a proxy parameter and specifying a predetermined degree of separation. Specifying a predetermined degree of separation between parties may control the error (which may be magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of "strategic," a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.,  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.,  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a

predetermined degree of separation. Claim 43 depends from claim 30. Thus, claims 30 and 43 are patentable for at least the above reasons.

Regarding claims 31-34, the deficiencies of Tarrant and Krysiak are not remedied by Smith. Thus, claims 31-34 are patentable for the above reasons. The rejections of claims 30-34 and 43 under 35 U.S.C. 103 should be reversed.

**I. Claim 35 Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claim 35 is unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a). The Final Office Action admits that (Page 11.):

Tarrant does not specifically teach querying another computer if the first entity is not a trusted entity and specifying the predetermined degree of separations (between the entities). Tarrant also does not explicitly teach establishing a business relationship with the sought entity based on the response.

The Office Action alleges that (Page 11.):

Krysiak et al. teach said method for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]. Also Krysiak et al. teach that a business relationship is established based upon an evaluation of trustworthy of a sought party [0014].

However, Krysiak does not even suggest the feature of “querying, by the first company, the third company to determine if the second company is known to the third company, specifying a maximum of **a predetermined number of degrees of separation.**” (Emphasis added.) Krysiak fails to teach anything about specifying a predetermined degree of separation. Specifying a predetermined degree of separation between parties may control the error (which may be

magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of "strategic," a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a predetermined degree of separation.

Moreover, the proposed combination of Tarrant and Krysiak fail to even suggest the features of "verifying, by the third company, **a rights management model** that exists between

the third company and the first company,” and “verifying by the further Companies **the rights management model** and determining if any of the further Companies know the second company.” (Emphasis added.) As disclosed in the present specification (Paragraph 64.):

In step 905, company B verifies a rights management model that exists between itself and company A. A rights management model is a set of rules or rights used to determine the type of information that may be exchanged between companies.

For example, depending on the business arrangement, companies may determine the type of information that is exchanged. The proposed combination of Tarrant and Krysiak fail to teach anything about a rights management model and the Office Action fails to provide any discussion of this feature.

The Office Action admits that “Tarrant and Krysiak et al. do not specifically teach forwarding a “Do You Know” query to further companies. (Page 12.) The Final Office Action asserts (Page 12. Emphasis added.):

Examiner points out that there is no indication in the specification that said feature (“Do You Know” query) provides the advantage over the prior art. Without such indication, it appears that the use of said query **appears to be an obvious variation of relationship inquires.**”

While the Office Action alleges the belief that the said feature appears to be obvious, the Office Action fails to provide a teaching that even suggests the feature. Thus, the Office Action has failed to establish *prima facie* obviousness.

Claim 35 is patentable over Tarrant and Krysiak for at least the above reasons. Thus, the rejections of claim 35 under 35 U.S.C. 103 should be reversed.

**J. Claim 36 Is Patentable At Least Because The Proposed Combination of Tarrant and Krysiak Does Not Suggest Every Feature.**

The Final Office Action alleges that claim 36 is unpatentable over US 2002/0128939 (Tarrant) in view of US 2002/0078003 (Krysiak) and rejects the claims under 35 U.S.C. 103(a).

The Final Office Action admits that (Page 12.):

Tarrant does not specifically teach querying another computer if the first entity is not a trusted entity and specifying the predetermined degree of separations (between the entities). Tarrant also does not explicitly teach establishing a business relationship with the sought entity based on the response.

The Office Action alleges that (Page 12.):

Krysiak et al. teach said method for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]. Also Krysiak et al. teach that a business relationship is established based upon an evaluation of trustworthy of a sought party [0014].

However, Krysiak does not even suggest the feature of “querying, if the first entity is not a trusted entity and if **a proxy parameter** is indicative that trusted entities are permitted to forward requests to other trusted parties, the trusted entities and **specifying a predetermined degree of separation.**” (Emphasis added.) Krysiak fails to teach anything about a proxy parameter and specifying a predetermined degree of separation. Specifying a predetermined degree of separation between parties may control the error (which may be magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of “strategic,” a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a predetermined degree of separation. Thus, claim 36 is patentable for the above reasons. The rejection of claim 36 under 35 U.S.C. 103 should be reversed.

**K. Claims 13-16 and 40-41 Are Patentable At Least Because The Proposed Combination of Tarrant, Krysiak, and Smith Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 13-16 and 40-41 are unpatentable over US 2002/0128939 (Tarrant) and US 2002/0078003 (Krysiak) in view of US 2002/015086 (Smith) and rejects the claims under 35 U.S.C. 103(a). Regarding independent claim 13, the Final Office Action admits (Page 14):

Tarrant does not specifically teach the degree of separations between the entities, and a plurality of entity roles, wherein each respective role in the plurality of roles defines a respective function entity fulfils to another entity.

The Office Action alleges (Page 14):

Krysiak et al. teach a system for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]).

Smith et al. teach a system form controlling a lifestyle of an electronic contract for a business relationship, wherein roles are associated with business relationship elements [0018].

However, Krysiak does not even suggest the feature of “generating a transactional trust list containing at least one parameter relative to an exchange between at least two of the entities through at least one degree of separation between the entities, the at least one parameter comprising a **proxy parameter**, the proxy parameter being indicative of an action that a trusted party can perform on behalf of a trusting party.” (Emphasis added.) Krysiak fails to teach anything about a proxy parameter. As discussed in the present specification, a proxy parameter affects requests to other trusted parties, e.g., whether a party can forward requests to other trusted parties (paragraph 44). The Final Office fails to even discuss this feature.

The Office Action further alleges that (Page 14.):

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant to include identifying multiple path connections for identifying the most trusted path connection, as disclosed in Krysiak et al, because it would allow users to collect the most trusted information about sought entity.

And it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant and Krysiak et al. to include associating roles with business relationship so that each respective role defines a respective function that one entity fulfills to another entity, as disclosed in Smith et al., because it would increase the degree of trust of users in conducting business over the computer network using a mechanism that tie the business relationship to terms and conditions of a legal (Smith et al. [0007]).

The Office Action alleges that the proposed combination of Tarrant and Krysiak uses trustworthiness to identify data while Smith uses a role to identify a shared process. However, there is no motivation to combine Tarrant, Krysiak, and Smith to suggest the feature of “generating a capability domain and activity trust level data base for each of the at least two

entities, the data base having a plurality of levels of trust and a plurality of entity roles, the capability domain and activity trust data base comprising a plurality of entries, **each entry being indexed by an entity role and a level of trust, each said entry being indicative of a corresponding business process.**” (Emphasis added.)

Moreover, the Final Office Action fails to even mention the feature of “creating at least one receiving component that obtains information from the entity trust list and the transactional trust list in order to provide a framework for at least two of the entities to establish relationships between one another.”

Claims 14-16 and 40-41 ultimately depend from claim 13 and are patentable for the above reasons. The rejections of claims 13-16 and 40-41 under 35 U.S.C. 103 should be reversed.

**L. Claims 17-20 Are Patentable At Least Because The Proposed Combination of Tarrant, Krysiak, and Smith Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 17-20 are unpatentable over US 2002/0128939 (Tarrant) and US 2002/0078003 (Krysiak) in view of US 2002/015086 (Smith) and rejects the claims under 35 U.S.C. 103(a). Regarding claim 17, the Office Action alleges that (Page 14.):

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant to include identifying multiple path connections for identifying the most trusted path connection, as disclosed in Krysiak et al, because it would allow users to collect the most trusted information about sought entity.

And it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant and Krysiak et al. to include associating roles with business relationship so that each respective role defines a respective function that one entity fulfills to another entity, as disclosed in Smith et al., because it would increase the degree of trust of users in conducting business



over the computer network using a mechanism that tie the business relationship to terms and conditions of a legal (Smith et al. [0007]).

The Office Action alleges that the proposed combination of Tarrant and Krysiak uses trustworthiness to identify data while Smith uses a role to identify a shared process. However, there is no motivation to combine Tarrant, Krysiak, and Smith to suggest the feature of “configuring a capability domain and activity trust level data base for each of the at least two entities, the database having a plurality of levels of trust and a plurality of entity roles, the capability domain and activity trust level data base comprising a plurality of entries, **each entry being indexed by an entity role and a level of trust, each said entry being indicative of a corresponding business process.**” (Emphasis added.)

Moreover, the Final Office Action fails to even mention the feature of “creating at least one receiving component that obtains information from the entity trust list and the transactional trust list in order to provide a framework for at least two of the entities to establish relationships between one another.”

Claims 18-20 ultimately depend from claim 17 and are patentable for the above reasons. The rejections of claims 17-20 under 35 U.S.C. 103 should be reversed.

**M. Claims 37-39 Are Patentable At Least Because The Proposed Combination of Tarrant, Krysiak, and Smith Does Not Suggest Every Feature.**

The Final Office Action alleges that claims 37-39 are unpatentable over US 2002/0128939 (Tarrant) and US 2002/0078003 (Krysiak) in view of US 2002/015086 (Smith) and rejects the claims under 35 U.S.C. 103(a).

The Final Office Action alleges that claims 13-16 and 40-41 are unpatentable over US 2002/0128939 (Tarrant) and US 2002/0078003 (Krysiak) in view of US 2002/015086 (Smith)

and rejects the claims under 35 U.S.C. 103(a). Regarding independent claim 13, the Final Office Action admits (Page 14):

Tarrant does not specifically teach the degree of separations between the entities, and a plurality of entity roles, wherein each respective role in the plurality of roles defines a respective function entity fulfils to another entity.

The Office Action alleges (Page 14):

Krysiak et al. teach a system for identifying information sources based on one or more trust networks associated with one or more knowledge domains, wherein the multiple path connections (degree of separation) is provided for identifying the most trusted path connection (Figs. 11-14; [0070]-[0076]).

Smith et al. teach a system form controlling a lifestyle of an electronic contract for a business relationship, wherein roles are associated with business relationship elements [0018].

However, Krysiak does not even suggest the feature of “a capability domain having a plurality of entity roles within a **predetermined degree of separation.**” (Emphasis added.) Krysiak fails to teach anything about a predetermined degree of separation. Specifying a predetermined degree of separation between parties may control the error (which may be magnified as the degree of separation increases) in assigning activity trust levels. For example, as disclosed by the present patent application (Paragraph 62.):

In part because the determination of an activity trust level for a particular entity is a subjective judgment, any error in assigning activity trust levels may be magnified as the degrees of separation increase. As a result, a seeking company may want to limit the number of degrees of separation between itself and a sought entity when seeking transitive trust levels. In one embodiment of the invention, rules may be established for associating a maximum number of degrees of separation with trust levels. For example, when seeking a company having an activity trust level of “strategic,” a seeking company may limit the search to 1 or 2 degrees of separation and allow greater degrees of separation for lower activity trust levels.

However, Krysiak merely teaches (Paragraph 71):

Regarding a "trust search," consider that Bob is looking for someone with knowledge in a particular knowledge domain for which this is the representative trust network 320. Bob only knows Jane and his peer-evaluation of her is higher

than his self-evaluation in this given knowledge domain (e.g.,  $6 > 2$ ). Thus Bob will seek Jane's counsel. Jane, in turn, with a self-evaluation of 4, will seek Sue's counsel because her peer-evaluation of Sue is higher than her self-evaluation (e.g.,  $9 > 4$ ); however, Jane will not seek Joe's counsel because her peer-evaluation of him is lower than her self-evaluation for this knowledge domain (e.g.,  $4 > 2$ ). Thus, Jane will refer Bob to Sue. Sue, in turn, with a self-evaluation of 5, will seek Sarah's counsel because her peer-evaluation of Sarah is higher than her self-evaluation (e.g.,  $8 > 5$ ). Thus, Sue will continue to refer Bob to Sarah, who, since the end of the trust chain has been reached, is the person Bob should ultimately seek to provide the desired counsel. This model assumes a transitive rule of trust in which if user A trusts user B who trusts user C, user A is therefore justified in trusting user C.

While there is a degree of separation between Bob and Jane, Krysiak does not even suggest specifying a predetermined degree of separation. Krysiak teaches that during a trust search (e.g., as initiated by Bob), if the first entity (e.g., Jane) has a lower level of trustworthiness than the other party (e.g., Sarah), the request is forwarded to the other party without considering a predetermined degree of separation.

The Office Action further alleges that (Page 14.):

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant to include identifying multiple path connections for identifying the most trusted path connection, as disclosed in Krysiak et al, because it would allow users to collect the most trusted information about sought entity.

And it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tarrant and Krysiak et al. to include associating roles with business relationship so that each respective role defines a respective function that one entity fulfills to another entity, as disclosed in Smith et al., because it would increase the degree of trust of users in conducting business over the computer network using a mechanism that tie the business relationship to terms and conditions of a legal (Smith et al. [0007]).

The Office Action alleges that the proposed combination of Tarrant and Krysiak uses trustworthiness to identify data while Smith uses a role to identify a shared process. However, there is no motivation to combine Tarrant, Krysiak, and Smith to suggest the feature of “**a respective business process** of a plurality of business processes being associated with each combination of **a respective role** of the plurality of roles and **a respective trust level** of the

plurality of trust levels, wherein the data structure is indexed by the capability domain and the activity trust domain to obtain a corresponding business process. (Emphasis added.)

Claims 38-39 ultimately depend from claim 37 and are patentable for the above reasons. The rejections of claims 37-39 under 35 U.S.C. 103 should be reversed.


**Conclusion**

The rejections of claims 1-44 contained in the Final Office Action of October 7, 2005 should be reversed for at least the reasons recited above. Reversal of the rejections is requested.

Respectfully Submitted,

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Date: March 6, 2006

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## CLAIMS APPENDIX

1) A computer-readable medium having computer-executable components comprising:

- a) an inquiry receiving component for receiving an inquiry from the seeking entity;
- b) a response receiving component for receiving a response indicating an existing relationship between the sought entity and an intermediate entity; and
- c) a confirming component for confirming, based on the response, that the new relationship may be established, the response being indicative of a trust level of the sought entity by the intermediate entity regarding the existing relationship;
- d) a verification component for determining whether information can be shared between entities in accordance with rights management.

2) A computer-readable medium having computer-executable instructions for performing steps comprising:

- a) generating at least one entity trust list containing at least one characteristic of at least two of the entities, a level of trust being gauged by the at least one characteristic;
- b) generating at least one transactional trust list containing at least one parameter relative to an exchange between at least two of the entities through at least one degree of separation between the entities, the at least one parameter comprising a proxy parameter, the proxy parameter being indicative of an action that a trusted party can perform on behalf of a trusting party; and
- c) creating at least one receiving component that obtains information from the at least one entity trust list and the at least one transactional trust list in order to provide a framework for at least two of the entities to establish relationships between one another.

3) The computer-readable medium of claim 2, wherein the plurality of interconnected entities correspond to nodes on a network.

4) The computer-readable medium of claim 3, wherein the network is a wide area network.

5) The computer-readable medium of claim 3, wherein the network is the Internet.

6) The computer-readable medium of claim 3, wherein the entities are business entities, and wherein the system provides a framework for the business entities to discover, validate and establish business relationships over the network.

7) The computer-readable medium of claim 2, wherein the at least two entities have capabilities of sharing information about other entities, each of the other entities being at least one of a business partner and a known contact.

8) The computer-readable medium of claim 2, wherein the entity trust list contains, for a respective entity, at least one of: names of known entities and identifying characteristics thereof; previous transactions between the respective entity and other entities; historical transactions between the respective entity and other entities; quality ratings of the historical transactions; overall rating of other entities; and map of entity relationships.

9) The computer-readable medium of claim 8, wherein the map of entity relationships includes at least information that identifies entities and which other entities they know, and information about how relationships were formed between such entities.

10) The computer-readable medium of claim 2, wherein the transactional trust list has proxy trust parameters and activity trust parameters.

11) The computer-readable medium of claim 10, wherein the proxy trust parameters include at least: an ability of a respective entity to forward requests to other trusted entities; ability to add new entities as trusted entities; ability to communicate opinions about a predetermined entity to other entities; and ability to dynamically create proxy parameters that are specified by any two cooperating entities.

12) The computer-readable medium of claim 10, wherein activity trust parameters include at least one of: types of transactions a respective entity can handle; activity trust levels; and past activity with a predetermined entity.

13) A computer-readable medium having computer-executable instructions for performing steps comprising:

a) generating an entity trust list containing at least one characteristic of at least two of the entities, a level of trust being gauged by the at least one characteristic;

b) generating a transactional trust list containing at least one parameter relative to an exchange between at least two of the entities through at least one degree of separation between the entities, the at least one parameter comprising a proxy parameter, the proxy parameter being indicative of an action that a trusted party can perform on behalf of a trusting party;

c) generating a capability domain and activity trust level data base for each of the at least two entities, the data base having a plurality of levels of trust and a plurality of entity roles, the capability domain and activity trust data base comprising a plurality of entries, each entry being indexed by an entity role and a level of trust, each said entry being indicative of a corresponding business process; and

d) creating at least one receiving component that obtains information from the entity trust list and the transactional trust list in order to provide a framework for at least two of the entities to establish relationships between one another.

14) The computer-readable medium of claim 13, wherein each respective role in the plurality of roles defines a respective function that one entity fulfills to another entity.

15) The computer-readable medium of claim 13, wherein each respective level of trust in the plurality of levels of trust defines a respective degree of trust between one entity and another entity.

16) The computer-readable medium of claim 13, wherein a respective business process of a plurality of business processes is associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels.

17) A computer-readable medium having computer-executable instructions for performing steps comprising:

a) configuring a capability domain and activity trust level data base for each of the at least two entities, the database having a plurality of levels of trust and a plurality of entity roles, the capability domain and activity trust level data base comprising a plurality of entries, each entry being indexed by an entity role and a level of trust, each said entry being indicative of a corresponding business process; and

b) creating at least one receiving component that obtains information from an entity trust list and a transactional trust list in order to provide a framework for at least two of the entities to establish relationships between one another.

18) The computer-readable medium of claim 17, wherein each respective level of trust in the plurality of levels of trust defines a respective degree of trust between one entity and another entity.

19) The computer-readable medium of claim 17, wherein each respective role in the plurality of roles defines a respective function that one entity fulfills to another entity.

20) The computer-readable medium of claim 17, wherein a respective business process of a plurality of business processes is associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels.



21) A method, in a computer system, of establishing a new business relationship with a sought entity over a network, wherein all steps are performed on the computer system, the method comprising the steps of:

- a) sending, by a first computer to a second computer, an inquiry to an intermediate entity to determine if the intermediate entity has an existing relationship with the sought entity;
- b) receiving, by the first computer, a response from the intermediate entity indicating an existing relationship between the sought entity and the intermediate entity; and
- c) establishing the new business relationship with the sought entity based on the response, the response being indicative of a trust level of the sought entity by the intermediate entity and of a corresponding valuation criterion, the trust level being dependent on the corresponding valuation criterion.

22) The method of claim 21, further comprising specifying an acceptable degree of separation and determining whether the existing relationship exists within the specified degree of separation.

23) A method, in a computer system, of establishing a relationship with an unknown company, wherein all steps are performed on the computer system, the method comprising the steps of:

- a) querying, by a first computer to a second computer, at least one trusted company to determine the existence of a relationship between the at least one trusted company and the unknown company;
- b) receiving, by the first computer, a confirmation of a relationship between the at least one trusted company, the confirmation being indicative of a trust level of the unknown company by one of the at least one trusted company and a corresponding at least one valuation criterion, the trust level of the unknown company being dependent on the corresponding at least one valuation criterion; and
- c) establishing a relationship with the unknown company in response to receiving the confirmation.

24) A method, in a computer system, of establishing relationships between at least two entities, wherein all steps are performed on the computer system, the method comprising the steps of:

- a) receiving, by an associated computer, at a second entity a contact identifying a first entity;
- b) checking a list of trusted entities by the second entity to determine if the first entity is a trusted entity;
- c) querying, another computer by the associated computer, if the first entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward requests to other trusted parties, the trusted entities and specifying a predetermined degree of separation; and
- d) establishing a relationship between the first and second entities when the first entity is known by at least one respective entity of the trusted entities, the relationship being based on information from one of the trusted entities, the information being indicative of a trust level about the first entity.

25) The method according to claim 24, the method further comprising:

- e) providing a capability domain and activity trust level data base for each of entities, the database having a plurality of levels of trust and a plurality of entity roles.

26) The method according to claim 25, further comprising:

- f) supporting each respective role in the plurality of roles to correspond to a respective function that one entity fulfills to another entity.

27) The method according to claim 25, further comprising:

- f) supporting each respective level of trust in the plurality of levels of trust to correspond to a respective degree of trust between one entity and another entity.

28) The method according to claim 25, further comprising:

f) supporting a respective business process of a plurality of business processes that is associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels.

29) The method according to claim 24, the method further comprising:

e) providing a capability domain and activity trust level database for each of entities, the matrix having a plurality of levels of trust and a plurality of entity roles.

30) A method in a transitive trust network for providing a framework for at least two entities to establish relationships between one another, the transitive trust network including at least one computer, wherein all steps are performed on the at least one computer, the method comprising the steps of:

a) receiving, by an associated computer, at a second entity a contact identifying a first entity;

b) checking a list of trusted entities, associated with the second entity, by the second entity to determine if the first entity is a trusted entity;

c) querying, another computer by the associated computer, if the first entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward requests to other trusted parties, by the second entity at least a third entity of the trusted entities associated with the second entity, and specifying a predetermined degree of separation;

d) checking a list of trusted entities, associated with the third entity, by the third entity to determine if the first entity is a trusted entity;

e) continuing querying and checking, if the first entity is not a trusted entity, until a maximum separation of the degree of separation is reached or until the first entity is known to a respective trusted entity; and

f) establishing a relationship between the first and second entities when the first entity is known by at least one respective entity of the trusted entities, the relationship being based on information from one of the least one respective entity, the information being indicative of a level of trust about the first entity.

31) The method according to claim 30, the method further comprising:  
g) providing a capability domain and activity trust level data base for each of the entities, the data base having a plurality of levels of trust and a plurality of entity roles.

32) The method according to claim 31, further comprising:  
h) supporting each respective role in the plurality of roles to correspond to a respective function that one entity fulfills to another entity.

33) The method according to claim 31, further comprising:  
h) supporting each respective level of trust in the plurality of levels of trust to correspond to a respective degree of trust between one entity and another entity.

34) The method according to claim 31, further comprising:  
h) supporting a respective business process of a plurality of business processes that is associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels.

35) A method in a transitive trust network for providing a framework for Companies to establish relationships between one another, the transitive trust network including at least one computer wherein all steps are performed on the at least one computer, the method comprising the steps of:

- a) contacting, between a first computer and a second computer, a first company by a second company regarding a potential relationship;
- b) checking, by the first company, a trusted user list thereof and determining if the second company is known to the first company;
- c) querying, by the first company when the second company is unknown, companies that are trusted users thereof to determine who is available for peer requests;
- d) notifying, by a third company, the first company that the third company is an active peer;

- e) verifying, by the third company, a rights management model that exists between the third company and the first company;
- f) querying, by the first company, the third company to determine if the second company is known to the third company, specifying a maximum of a predetermined number of degrees of separation;
- g) querying, by the third company when the second company is unknown, companies that are trusted users thereof to determine who is available for peer requests;
- h) forwarding, by the third company, based on a respective list of peers thereof and a trust agreement between the first company and the third company, a “Do You Know” query to further Companies on behalf of the first company, verifying rights management models between all peers;
- i) verifying by the further Companies the rights management model and determining if any of the further Companies know the second company;
- j) querying, by a respective company of the further Companies when the respective company knows the second company, the second company to determine if the second company is active for peer requests;
- k) responding by the respective company to the third company with an affirmative on knowing the second company, in response to the “Do You Know” query;
- l) notifying, by the third company, the first company that the third company knows the second company through the predetermined number of degrees of separation, and passing transitive trust rights to the first company;
- m) establishing, by the first company, contact with the respective company through the trust passed by the third company;
- n) querying, by the first company, the further company for an “opinion” on the second company, the further company providing feedback based on rights rules; and
- o) establishing, by the first company, a relationship with the second company based on the feedback from the further company.

36) A computer-readable medium for use in a transitive trust network for providing a framework for at least two of the entities to establish relationships between one another, the computer-readable medium having computer-executable instructions for performing the steps comprising:

- a) receiving at a second entity a contact identifying a first entity;
- b) checking a list of trusted entities by the second entity to determine if the first entity is a trusted entity;
- c) querying, if the first entity is not a trusted entity and if a proxy parameter is indicative that trusted entities are permitted to forward requests to other trusted parties, the trusted entities and specifying a predetermined degree of separation; and
- d) establishing a relationship between the first and second entities when the first entity is known by at least one respective entity of the trusted entities, the relationship being based on information from one of the at least one respective entity, the information being indicative of a level of trust about the first entity.

37) A computer-readable medium having stored thereon a data structure comprising:

- a) a capability domain having a plurality of entity roles within a predetermined degree of separation; and
- b) an activity trust domain having a plurality of levels of trust;
- c) a respective business process of a plurality of business processes being associated with each combination of a respective role of the plurality of roles and a respective trust level of the plurality of trust levels, wherein the data structure is indexed by the capability domain and the activity trust domain to obtain a corresponding business process.

38) The computer-readable medium having stored thereon a data structure according to claim 37, wherein each respective role in the plurality of roles defines a respective function that one entity fulfills to another entity.

39) The computer-readable medium having stored thereon a data structure according to claim 37, wherein each respective level of trust in the plurality of levels of trust defines a respective degree of trust between one entity and another entity.

40) The transitive trust network system of claim 13, wherein the corresponding business process is selected from a group consisting of a design process, a source process, a plan process, a buy process, a make process, a sell process, a fulfill process, and a service process.

41) The transitive trust network system of claim 13, wherein the entity trust list includes an overall trust score between two entities, the overall trust score being determined from an associated plurality of entries of the capability domain and activity trust level data base.

42) The method of claim 24, further comprising:

- e) associating each of the trusted entities with an associated trust level that is more trusted than a predetermined minimum trust level; and
- f) establishing the predetermined minimum trust level by an associated proxy parameter.

43) The method of claim 30, further comprising:

- g) associating the third entity with an associated trust level that is more trusted than a predetermined minimum trust level; and
- h) establishing the predetermined minimum trust level by an associated proxy parameter.

44) A computer-readable medium having computer-executable instructions for performing steps comprising:

creating a trust component that stores a trust level for each directly interconnected entity and at least one corresponding valuation criterion for determining the trust level and that obtains an associated trust level of a sought entity through an interconnected intermediate entity if the sought entity is not directly interconnected to the selected entity, the trust component comprising:

an entity trust portion that includes a first data structure, the first data structure storing a distinguishing characteristic of each said directly interconnected entity, a degree of trust being indicative of the distinguishing characteristic; and

a transactional trust portion that includes a second data structure, the second data structure including a plurality of transactional parameters, the plurality of transactional parameters being indicative of criteria for conducting the new business relationship, the plurality of transactional parameters comprising:

a proxy parameter that is indicative of an activity, the activity being performed by a trusted party on behalf of a trusting party; and

a plurality of activity-trust parameters being indexed by an activity trust domain and a capability domain, the activity trust domain being indicative of an activity trust level, the capability domain being indicative of an activity process level, each activity-trust parameter being indicative of an associated business process; and

creating a transactional component that provides peer-to-peer capability for sharing information with the other interconnected entity, the transactional component utilizing information from the trust component.



**EVIDENCE APPENDIX**

-NONE-

**RELATED PROCEEDINGS APPENDIX**

-NONE-